2023 CDP CLIMATE CHANGE RESPONSE

Notice to users: This CDP response is limited to CP's standalone activities and operations from January 1st through December 31st of 2022, and does not extend to KCS's 2022 operations and activities. This report is not intended to serve as a comprehensive report of all climate initiatives undertaken by CP or KCS. In addition, unless indicated otherwise or the context otherwise requires, we are not reporting on the climate initiatives of the combined CPKC.

For more information or questions regarding this report or sustainability at CPKC, please contact sustainability@cpkcr.com

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C0. Introduction

C0.1

Give a general description and introduction to your organization.

Canadian Pacific Railway Limited ("CPRL"), together with its subsidiaries ("CP" or the "Company"), owns and operates a transcontinental freight railway in Canada and the U.S. CP's diverse business mix includes bulk commodities, merchandise freight and intermodal traffic across a network of approximately 13,000 miles, directly serving the principal business centres of Canada, from Montreal to Vancouver and the U.S. Northeast and Midwest regions. Through connections with other railways supported by a vast network of terminals, classifying yards, intermodal facilities and transload operations, CP is able to extend its reach to customers across Canada and the U.S. On average, CP transports more than 53,000 carloads of customer goods and materials weekly.

CP's 2022 total revenue was over $8.8B, derived primarily from freight transportation services and divided between the following sectors:

- 38 percent bulk (grain, coal, potash, fertilizers and sulphur)
- 36 percent merchandise (energy, chemicals and plastics, metals, minerals and consumer products, automotive and forest products)
- 26 percent intermodal (domestic and international)

In December 2021, CP announced the acquisition of Kansas City Southern (KCS). In March 2023, the United States Surface Transportation Board (STB) authorized the acquisition, and the combination of CP and KCS was completed on April 14, 2023 to create a combined Canadian Pacific Kansas City Limited (CPKC), the first single-line railway connecting Canada, the U.S. and Mexico.

This CDP response is limited to CP's standalone activities and operations from January 1st through December 31st of 2022, and does not extend to KCS's 2022 operations and activities. This report is not intended to serve as a comprehensive report of all climate initiatives undertaken by CP or KCS. In addition, unless indicated otherwise or the context otherwise requires, we are not reporting on the climate initiatives of the combined CPKC. As we integrate the operations of KCS and CP, we are conducting additional data-gathering and intend to further assess the climate initiatives and performance of the combined CPKC, and may make changes to our existing strategies and initiatives as a result. For example, in June 2023, we announced a new locomotive target for the combined CPKC, which has been validated by SBTi and which replaces the historical targets set by CP and KCS, including the science-based targets CP set in 2021.

Shipping goods and materials by railway is currently the most fuel-efficient method of on-land freight transportation over long distances. A single-unit train is estimated to keep more than 300 trucks off public roads, and is estimated to be roughly four times more fuel-efficient than shipping by truck and produce approximately 75 percent less greenhouse gas (GHG) emissions. Use of rail helps shippers further reduce their GHG emissions. At CP, we have also improved the fuel efficiency of our locomotive fleet by 43 percent since 1990. As CP continues to strategically grow our business, we intend to continue to curtail our emissions while supporting further emissions reductions across the broader transportation sector.

In 2022, CP has undertaken several steps to advance our approach to address climate change and implement our Climate Strategy, which was first published in July 2021. This includes establishing a Carbon Reduction Task Force (CRTF), composed of CP's industry-leading engineers and operations experts. This group evaluates, recommends and implements climate action measures to reduce GHG emissions and drive performance in the direction of our science-based targets, which were announced in 2021. Also, in 2022, CP further developed our Hydrogen Locomotive Program, passing a significant milestone by completing successful movement and freight service testing with our first converted hydrogen locomotive. In 2022, we increased engagement with our stakeholders on climate actions by releasing a web-based Carbon Emissions Calculator for use by current and prospective rail customers. This tool is designed to provide users with the ability to calculate and compare an estimate of the GHG emissions related to transportation of freight by CP's rail services versus heavy haul trucking alternatives. Additional detail about these and other initiatives are provided throughout this response.

C0.2

State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2022	December 31, 2022	No

C0.3

Select the countries/areas in which you operate.

Canada
United States of America

C0.4

Select the currency used for all financial information disclosed throughout your response.

CAD

C0.5

Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-TO0.7/C-TS0.7

For which transport modes will you be providing data?

Rail

C0.8

Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a Ticker symbol	CP

C1. Governance

C1.1

Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1A

Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Please explai
Board-level committee	The Company has established a clear governance structure to effectively communicate and respond to relevant ESG topics, while progressing our sustainability commitments and implementing sustainable practices into our business. CP's Board of Directors (the Board), through its committees, is responsible for monitoring, measuring and overseeing CP's key risks, strategies and sustainability topics, including oversight of climate change risk and responsibilities. Specifically, the Risk and Sustainability Committee (RSC) of the Board reviews CP's short- and long-term sustainability objectives, including objectives around climate change and monitors emerging trends. As outlined in the Committee's Terms of Reference, the RSC is responsible for reviewing the Company's performance against sustainability objectives, plans to improve sustainability practices and reporting as well as strategic plans and opportunities to align sustainability objectives with our long-term climate strategy. The RSC had three formal meetings as well as a number of informal meetings in 2022, and reports regularly to the full Board. An area of focus for the RSC in 2022 was advancing our Climate Strategy and efforts to meeting the science-based GHG emissions reduction targets set in 2021. The RSC supported management in evaluating carbon reduction opportunities aligned to the demands of our freight rail business, including the expansion of our industry-leading Hydrogen Locomotive Program. In 2022, CP also sought feedback from shareholders on our approach to climate change, including through the "say on climate" vote at CP's Annual General Meeting. Although the vote is non-binding, the Board and RSC review and considers the voting results when evaluating the Company's approach to climate change. In 2022, the RSC and Board also supported management's proposal to commit CP to participate in the United Nations Global Compact, resulting in CP becoming the first freight rail company in North America to take this step.

C1.1B

Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	• Reviewing and guiding annual budgets • Overseeing major capital expenditures • Overseeing acquisitions, mergers, and divestitures • Overseeing and guiding employee incentives • Reviewing and guiding strategy • Monitoring the implementation of a transition plan • Monitoring progress towards corporate targets • Reviewing and guiding the risk management process	The Board is responsible for overseeing CP's business, providing overall guidance and direction to management, our long-term strategic direction, succession plans for senior officers, risk oversight and ensuring that the long-term interests of shareholders are served. The Board also has final approval on all matters related to executive compensation and employee incentives. Specifically with respect to climate, the Board approves incentives on the operating ratio: operating expenses divided by total revenues. Since the fuel used by the railroad is a major operating expense, CP focuses on opportunities to reduce fuel use and improve energy efficiency. CP's Board-level Risk and Sustainability Committee (RSC) provides oversight for sustainability and climate topics. The RSC formally met three times in 2022 and also had a number of informal meetings to discuss matters relevant to the committee. Key objectives of these meetings were to, among other things: (1) Review CP's short- and long-term sustainability objectives and results of any internal and external stakeholder engagement, (2) Review CP's performance against our short- and long-term sustainability objectives and review plans to improve performance concerning sustainability practices and reporting, (3) Review strategic plans and opportunities for the business to ensure alignment with our sustainability objectives and long-term sustainability considerations, including climate change, workforce risks and supply chain risks and (4) Monitor and report on emerging trends, risks or issues related to sustainability topics relevant to CP. Specifically regarding climate change, in 2022, the RSC focused on advancing the implementation of our Climate Strategy and efforts to meet CP's science-based GHG emissions reduction targets set in 2021. The Board as part of its budget process approved investments of resources and assets in infrastructure which included projects aimed at enhancing safety and mitigating environmental and climate-related impacts of our operations. Additionally, the Board and RSC supported management's proposal to participate in the UN Global Compact.

C1.1D

Does your organization have at least one board member with competence on climate-related issues?

Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Yes	CP reviews Board member experience and competence across a variety of sustainability topics, including through the annual board evaluation process which reviews member experience in environmental, health and safety matters, including sustainable development. In alignment with these criteria, CP has current Board members with competence on climate-related topics. CP has directors with experience in the energy sector including (1) executive or Board-level experience with companies in the energy or environmental services sectors and/or (2) experience with environmental, health and safety related experience (including on climate-related and sustainability topics) at other organizations, including direct business expertise in the environmental services, power and energy sectors. Additionally, some Board members have served as executives and/or Board members on climate-related and sustainability topics for other organizations. For example, CP's Chair of the Board is currently the Chair of the Board-level Research, Innovation and Sustainable Development Committee at a major global environmental services organization. To ensure members remain current and knowledgeable on dynamic climate-related topics specific to CP and the transportation sector, all directors have exposure to climate-related education sessions while being a Board member at CP. Attendance at these sessions helps our Board remains current on relevant climate-related topics, and helps CP maintain strong board governance, decision-making and oversight. More information can be found in our 2023 Proxy Circular: https://s21.q4cdn.com/736796105/files/doc_downloads/2023/05/2023-CPKC-PROXY-411345_CIRC_EN_FINAL.pdf.

C1.2

Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee
Chief Executive Officer (CEO)

Climate-related responsibilities of this position
Implementing a climate transition plan
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line
Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain
CP's President and CEO, who is also a Director on the Board, is responsible for making high level decisions on organizational management and performance related to climate change. The President and CEO, together with the executive leadership team and in alignment with the Board, oversees development of management's approach to climate related issues and works with key leaders across the business. One example of the President and CEO's oversight of climate-related topics in 2022 included approval of the development and launch of CP's Carbon Emissions Calculator. This online tool enables current and prospective customers to calculate and compare an estimate of the GHG emissions related to transportation of freight by CP's rail services versus heavy haul trucking alternatives.

With oversight from CP's President and CEO, who is also a Director on the Board, decisions on day-to-day implementation of sustainability priorities are guided by a cross-functional executive Sustainability Steering Committee. The Sustainability Steering Committee regularly reports progress and advances recommendations on the Company's sustainability objectives, policies and management approach to the Risk and Sustainability Committee of the Board. In 2021, CP established a Carbon Reduction Task Force (CRTF), composed of our industry-leading engineers and operations experts. Reporting to the Executive Sustainability Steering Committee, the CRTF evaluates, recommends and implements climate action measures to reduce GHG emissions and drive performance in the direction of our science-based targets.

C1.3

Do you provide incentives for the management of climate-related issues, including the attainment of targets?

Provide incentives for the management of climate-related issues	Comment
Yes	

C1.3A

Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive
Corporate executive team

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary
Bonus – set figure

Performance indicator(s)
Energy efficiency improvement

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
Our compensation program includes short- and long-term incentives to support our pay for performance culture and is linked to the critical metrics that drive the achievement of our strategic plan while creating long-term sustainable value for our shareholders. CP's short-term incentive plan (STIP) is available to all non-union employees and focuses employees and executives on achieving strong financial, safety, operational and customer satisfaction results on an annual basis. Additionally, CP's management-level employees are eligible for long-term incentive plan (LTIP) awards to align their compensation with medium- and long-term performance of shares as well as business and financial objectives to deliver sustainable growth.

STIP is an annual monetary award for employees and executives based on achieving financial, safety and operational results. STIP awards can range from 0 to 200 percent of the base salary. Any award payable under the individual component is subject to a minimum level of corporate performance. The two key financial performance indicators on our STIP scorecard are operating ratio and operating income; both measures reflect our focus on driving down costs while progressing our growth strategy.

Since the fuel used by the railroad is a major operating expense, we focus on opportunities to reduce fuel use and improve energy efficiency while reducing CPKC's carbon footprint on our journey to reduce greenhouse gas (GHG) emissions. In support of the Company's climate programs, CP has implemented a precision scheduled railroading (PSR) operating approach. PSR focuses on operational efficiency and fuel efficiency metrics to drive performance improvements. In 2022 CP's fuel efficiency was 0.955 U.S. Gallons/1,000 gross ton-miles (GTM), an improvement of 43 percent relative to 1990.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
CP has various compensation programs designed to incentivize high-level performance and to align management's priorities with the business strategy and long-term interests of CP shareholders.

These programs incentivize employees to achieve results, including fuel efficiency improvements to drive economic and climate-related environmental performance.

Sustainability metrics have been embedded into performance measures for executive and employee compensation to help incentivize strong ESG outcomes.

C2. Risks and opportunities

C2.1

Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1A

How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	1	
Medium-term	1	10	
Long-term	10	30	CP's climate-related scenario analysis conducted in 2020 examined potential climate-related risks and opportunities out to 2050. Therefore, when identifying, assessing and responding to climate-related impacts, CP defines long-term as up to 30 years in the future.

C2.1B

How does your organization define substantive financial or strategic impact on your business?

CP's Enterprise Risk Management (ERM) process classifies organizational risks based on severity, frequency and probability of occurrence. Through this process, risks are considered to have a substantive financial or strategic impact when the impact severity is identified as moderate, major or catastrophic. Moderate risks are identified as those with a financial impact of at least $100M in operating costs or an event that requires up to a year of monitoring and recovery. Major risks are those likely to result in a significant disruption to business operations (such as infrastructure damage related to flooding, fire or other climate-related impacts) and identified as having a financial impact of at least $250M with an extended negative environmental, health and safety or reputational impact on the business. Catastrophic risks cause more than $400M of financial impact and create long-term and severe consequences for the business.

In addition to rating corporate risks by severity, we assess frequency and probability of occurrence, ranging from slight, not likely, likely, highly likely and expected. For example, a slight risk is considered to have less than a 10 percent probability of occurring or may occur every ten years or greater. Conversely, an expected risk has a 90 percent or greater probability of occurring or may occur at least annually. Together with the quantifiable financial and environmental thresholds, the frequency and probability of occurrence contribute to our definitions of substantive financial or strategic impact when assessing climate-related risks. If risks are deemed to have an impact severity of moderate or above or frequency of likely or above, they are considered substantive.

C2.2

Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

CP's ERM program is based on the ISO 31000 standard and Committee of Sponsoring Organizations (COSO) risk management framework, providing principles, guidelines and processes for managing risks. Organizational risks or opportunities are identified, assessed and prioritized more than once a year based on potential impact and likelihood, taking account of financial, safety, environmental, strategic and reputational impacts, as well as existing management measures. The ERM program integrates climate-related risks across short-, medium- and long-term time horizons and includes risks that impact CP's direct operations in addition to the upstream and downstream value chain. Through this process, CP is able to identify, assess and respond to climate-related risks and classify them from a minimal to a catastrophic level of impact.

For CP, moderate risks are identified as those with a substantive financial impact of at least $100M in operating costs or an event that requires up to a year of monitoring and recovery. Major risks likely to result in a significant disruption to business operations, such as infrastructure damage related to flooding, fire or other climate-related impacts, are identified as having a financial impact of at least $250M or extended negative environmental, health and safety or reputational impact on the business. Catastrophic risks cause more than $400M of financial impact or create long-term and severe consequences. Through this process, CP can identify, assess, prioritize, manage, and monitor the top significant risks on a quarterly basis. Risks, including sustainability and climate-related risks, are overseen and reviewed by CP's RSC of the Board.

Complementing our ERM program and to further understand climate-related risks, CP conducted climate-related scenario analysis in 2020 and identified transitional and physical risks. We assessed how these risks could manifest in the future under multiple climate scenarios in the short-, medium- and long-term. To stress-test the business and assess its resilience in a low-carbon economy, we considered a well-below 2°C scenario. CP's scenario analysis also considered how impacts to the business could change under both a more modest degree of global warming and following a business-as-usual scenario.

The scenario analysis was utilized to assess risks to CP's direct operations and extended value chain. This included evaluating how climate-related risks and opportunities could impact customers, specifically the demand for commodities that CP transports on their behalf. Based on stakeholder input during the process, climate risks and opportunities were identified and evaluated using international, national and regional databases. Scenario analysis was used to track emerging climate risks and determine which are most likely to be material for CP's business in alignment with the thresholds set by CP's ERM program. CP published our first comprehensive Climate Strategy in 2021, which included an overview of the scenario analysis exercise and a description of climate-related risks and opportunities impacting our operations. To respond to climate risks and opportunities, and meet our targets and decarbonization commitments, our Climate Strategy includes actions across five strategic pillars. CP also published our TCFD Index, which provides further details about our identified climate-related risks and opportunities, and regularly discloses climate and sustainability-related information, including about risks, in the Company's 10-K and Proxy Circular.

Following this exercise, CP is working to further embed climate science into its project evaluation, planning and risk management tools to inform the Company's response to substantive climate-related risks and opportunities. CP is working to utilize its ERM program supported by the results of the climate-related risk assessment and scenario analysis at least annually to support business decisions surrounding the response to and mitigation of climate risks and to act on climate-related opportunities across all time horizons.

Over the past few years, CP's overarching risk-related practices have been utilized to develop our approach to identifying, assessing and responding to climate-related physical risks. Our ERM program and scenario analysis identified physical risks as substantive to our business, something that CP also reports on in our Annual Report. CP has directly experienced the impact of physical risks and in 2022, CP furthered our efforts to understand and assess physical climate risks to our network by obtaining funding from Transport Canada's Rail Climate Change Adaptation Program to undertake a pilot study to design and test a framework for evaluating climate risks using climate data and field observations across 2,700 km of our network in British Columbia. This is an ongoing project that will improve our understanding and response to climate-related physical risks.

As an outcome of our engagement with the Board, ERM process and scenario analysis, CP continuously updates our programs to mitigate salient risks. A specific example of how these overarching processes result in CP responding to climate-related risks is the development of our annual Severe Weather Management plan, which aims to identify contributing factors to weather-related issues and understand how severe weather alerts can be issued and actioned to mitigate impacts. This program will improve CP's response to physical climate risks and increase resilience going forward. In addition, the 2022-2023 Winter Contingency Plan improved CP's operating performance through extensive forecasting, contingency planning and predictive winter modelling to help the Company prepare for adverse winter conditions. The Severe Weather Management plan and Winter Contingency Plan complements CP's long-standing seasonal and business continuity plans which help mitigate the negative impacts of severe weather events on CP's operations and safety.

CP's ERM program and climate-related scenario analysis are structured to enable an appropriate response to potential climate-related transitional risks. For example, CP's overarching risk management process and scenario analysis support our climate change objectives and locomotive fuel efficiency improvements, enabling project planners to invest in upgrades to locomotives and rolling stock equipment, thereby responding to transition risks while taking advantage of related opportunities. Our financial planning includes a focus on driving improvements in operational performance and annual fuel efficiency to mitigate risks around fuel costs. Specific programs related to responding to transition risks and realizing opportunities include our Hydrogen Locomotive Program, Locomotive Upgrades, and a $600M investment in our high-efficiency product (HEP) grain train initiative, resulting in 5,900 new high-efficiency cars added to CP's rolling stock fleet by the end of 2022.

C2.2A

Which risk types are considered in your organization's climate-related risk assessments?

CURRENT REGULATION

Relevance & inclusion

Relevant, always included

Please explain

The railway sector is subject to climate-related regulations that directly influence our operations and customers, including locomotive emissions standards, fuel standards, carbon levies, taxes and cap and trade programs. These risks are considered relevant to our business and are included in our risk assessments. As part of CP's ERM processes, we evaluate regulatory systems to ensure that we implement appropriate actions to mitigate regulatory risks or take advantage of potential business opportunities.

Government bodies at the provincial, state and federal levels are imposing carbon taxation systems and cap and trade market mechanisms in the Canadian jurisdictions in which CP operates. Approximately 75 percent of CP's Scope 1 and Scope 2 GHG emissions were generated through our operations in Canada and are impacted by carbon pricing mechanisms. Specific examples of current regulations that may pose a risk to our business include British Columbia's carbon tax and Canada's federal carbon pollution pricing program. As a fuel-intensive business, an increase in carbon pricing could significantly increase direct costs related to fuel purchases and indirect expenses related to purchased goods, materials and electricity required to operate our business. If the cost of service becomes too high, it could lead to losses in revenue that might affect our competitive advantage over alternative modes of transport. CP is further exposed to carbon pricing through electricity purchases, as electric utilities pass on carbon costs to customers.

Carbon pricing was reviewed as part of CP's climate-related scenario analysis. In this process, carbon costs were evaluated based on CP's fuel purchases (in Canada and the U.S.) under several existing regulations and alternative carbon price levels. In addition, we stress-tested our business practices against carbon pricing risk by calculating potential cost reductions associated with reducing our emissions along various trajectories. This process supported establishing CP's science-based targets and climate commitments.

EMERGING REGULATION

Relevance & inclusion

Relevant, always included

Please explain

The railway sector, rail customers, transportation competitors and suppliers are all subject to emerging regulations to reduce GHG emissions from the transportation sector. As a North American Class 1 freight rail operator, new regulations on locomotive technologies, renewable fuel requirements, low carbon fuel standards, carbon pricing systems and increased climate disclosure requirements could significantly impact CP's operating costs. Additionally, the introduction of, or changes to, regulations by government bodies in response to climate change that increase the cost of carbon emissions could result in a significant increase in expenses. Increasing costs to implement measures to comply with emerging regulations at CP and our suppliers can result in additional surcharges, increased costs of the materials we purchase to support our operations or other added expenses that could and could adversely affect our business performance, results of operations, financial position and liquidity and ultimately impact affordability for our customers. As a result, these risks are considered relevant and included in our risk assessments.

Examples of emerging regulatory requirements that may pose a risk to CP include the Canadian Securities Administrators (CSA) proposed National Instrument 51-107 – Disclosure of Climate-related Matters (NI 51-107) as well as the U.S. Securities and Exchange Commission's (SEC) proposed Climate Disclosure rules. These proposed rules aim to improve the consistency of corporate climate disclosures available to the investment community. Corporate filers would be required to report on climate-related financial metrics, risks and GHG emissions performance. CP already voluntarily reports on many of these metrics through our annual Sustainability Report and CDP response. Additionally, CP discloses certain

climate-related risks in our Annual Report and Form 10-K, including a discussion of our Climate Strategy, GHG emissions reduction targets and reduction initiatives. Compliance with these emerging regulations may require CP to expand reporting on complex financial assessments and/or the collection and analysis of emissions data. CP's sustainability team closely monitors developments surrounding climate-disclosure regulations to proactively incorporate required changes into CP's existing practices.

TECHNOLOGY

Relevance & inclusion

Relevant, always included

Please explain

Advancements in technology that improve fuel efficiency and energy management systems represent both a significant opportunity and risk for the rail sector. Shipping goods by rail is currently the most fuel-efficient method to transport freight materials long distances over land. Significant technological advancements impacting the efficiency of other modes of transport, or a lack of similar technology improvements in the rail sector, could ultimately impact CP's competitive advantage and negatively affect operations, financial condition and liquidity. Therefore, technological risks and opportunities are considered relevant and included in our risk assessments.

Other modes of freight transport that deploy technology to enable a fuel efficiency performance equivalent to or superior to freight rail (e.g., electrification of heavy haul trucking) is a potential technology risk for CP. By incorporating technology advancements in our risk and opportunity assessments, CP has identified opportunities to leverage technology to increase shipping capacity while simultaneously improving fuel efficiency and reducing GHG emissions. For example, CP has implemented an innovative 8,500-foot-long high-efficiency product (HEP) train model to provide efficient and superior service for our grain customers. The HEP train model, supported by high-capacity grain cars, enables CP to transport 44 percent more grain per unit train, requiring fewer train sets and using less fuel to move customers' grain products to market. We broke our all-time monthly record for shipping Canadian grain and grain products, moving 3.14M metric tons (MMT) in October 2022. By the end of 2022, more than 50 percent of grain elevators served by CP were able to accommodate the Company's HEP train program. Also in 2022, we completed our $600M million multi-year investment to acquire 5,900 new high-capacity grain hopper cars as part of our commitment to North American farmers. Including leased hoppers within CP's fleet, our grain customers had access to more than 7,300 high-capacity hoppers in active service at year-end, enabling the transportation of more grain in each train.

LEGAL

Relevance & inclusion

Relevant, always included

Please explain

By the nature of our operations, CP is exposed to potential regulatory actions, litigation and other claims, including environmental liability, freight claims and property damage claims. Any material changes to regulation, litigation trends, a substantial rail incident or series of incidents involving freight loss, property damage, personal injury, environmental liability or other significant matters could have a material adverse effect on CP's operations, financial position and liquidity. Therefore, legal risks are considered relevant and included in our risk assessments.

CP is subject to a wide variety of changing GHG emissions reporting programs, renewable fuel standards and carbon pricing regulations across our network. All of these programs are based on unique regulatory frameworks that present potential concerns for non-compliance related to consistent emissions reporting, management of emissions allowances and acquisition/availability of required carbon allowances or renewable fuel credits. Non-compliance with such regulatory programs due to any of the aforementioned examples could pose legal risks to CP.

In this evolving regulatory and litigation landscape, CP includes legal and regulatory considerations in our climate-related risk assessments to account for potential legal claims and regulatory compliance requirements to minimize CP's exposure to material litigation or fines. As an example of legal risks associated with climate change, extreme weather events caused by climate change can affect rail operations and potentially lead to increased rail incidents, and thus potentially result in significant regulatory actions or claims for injuries, damage to property or natural resources and environmental sanctions. CP has taken extensive steps to respond to weather-related events and make efforts to manage

future potential impacts, which can also help to mitigate potential legal risks. Being aware of climate-related legal risks enables CP to prepare and implement appropriate mitigation measures.

MARKET

Relevance & inclusion

Relevant, always included

Please explain

As a transportation service provider, CP is particularly vulnerable to downstream market changes over which the organization does not necessarily have control. Our customers are affected by climate-related issues such as increased periods and intensity of overland flooding that impact agricultural production or regulations of fossil fuels that could shift consumer demand for petroleum products in certain jurisdictions. A decline or disruption in domestic, cross-border or global economic conditions that affect the supply or demand for the commodities CP transports may decrease freight volumes and result in a material adverse effect on financial or operating performance and liquidity. Therefore, market risks and opportunities are considered relevant and included in our risk assessments.

Carbon pricing structures and other climate policies can impact current and potential customer demand for commodities, including thermal coal, renewable fuels, crude oil and other petroleum products. For example, transportation of coal, crude oil and petroleum products accounted for about 16 percent of CP's total freight revenues in 2022. Therefore, shifting patterns in demand and consumption based on changing consumer preferences or more stringent emissions requirements targeting CP's customers could pose substantial risks to our business.

Overall, a comprehensive transition in the energy sector could significantly impact the markets of CP's energy customers or lead to market differentiation through geographic variation in policies and demand trends. A portion of our business could be significantly affected by potential future changes and instability such a transition. However, these factors can also create new opportunities for CP, such as increased transportation of renewable fuels.

REPUTATION

Relevance & inclusion

Relevant, always included

Please explain

The transportation sector is one of the largest contributors to GHG emissions in North America. Within this sector, railroads are currently the most fuel efficient way to move freight long distances over land, moving the majority of North America's long-haul freight while comprising a fraction of total transport sector GHG emissions. Given evolving consumer preferences for reducing GHG emissions, CP is well-positioned to meet a growing interest in lower-carbon freight transportation. We continue to mitigate climate-related reputational risks by investing in technology and practices that further reduce the carbon intensity of rail operations and maintain our significant efficiency advantage. Due to its potential impact, reputational risks are considered relevant and included in our risk assessments. CP actively investigates climate-related opportunities to limit the impact of reputational risks.

CP is also taking steps to mitigate climate-related reputational risks by continually improving transparency and disclosure on climate-related topics, including the publication of our comprehensive Climate Strategy in 2021. We have also established GHG emission reduction targets to guide the implementation of our Climate Strategy. CP's inability to achieve our GHG emissions reduction targets could negatively impact our reputation, results of operations and financial position.

Starting in 2022, CP shareholders had the opportunity to provide feedback on CP's approach to climate change through the Company's first non-binding advisory, "say on climate" vote. This direct engagement with our shareholders, supported by our commitment to transparent climate-related reporting, helps CP to manage potential reputational impacts and acts as a mechanism by which shareholders can provide their feedback and prompt further dialogue on this important topic. The "say on climate" advisory vote on CP's approach to climate change received 86.88 percent approval in 2022. In 2023, we again invited shareholders to provide feedback on CP's approach to climate change through the "say on climate" vote.

Reputational risks could also result from either our value chain partners and/or employees. CP is actively working to manage these potential impacts and believes that our climate-related efforts help us to maintain engagement with value chain partners and build and maintain a diverse and skilled workforce.

ACUTE PHYSICAL

Relevance & inclusion

Relevant, always included

Please explain

As a transcontinental railway company, CP's rail network is exposed to severe weather conditions and natural disasters such as floods, fires, avalanches, extreme temperatures and precipitation. These events have the potential to cause business interruptions and adversely affect CP's rail network. Acute physical risks can increase costs, expose us to liabilities and decrease revenues in ways that could significantly affect our operational results, financial condition and liquidity. CP's insurance program protects the Company against loss of business and related consequences from natural occurrences. This program is subject to coverage limitations, depending on the nature of the risk insured. CP's insurance coverage may be insufficient for all damages and may not continue to be available at commercially reasonable rates. Also, even with insurance, if any natural occurrence leads to a catastrophic interruption of services, CP may not be able to restore services without a significant interruption in operations. Therefore, acute physical risks are considered relevant and included in our risk assessments.

CP regularly assesses physical risks to our rail network to understand potential operational and financial impacts over time. For example, recent weather-related events across North America have illustrated the effect severe weather can have on CP's rail network. Weather and climate information are essential to reducing the impact of severe weather risks and are critical to strategic decision-making and the safe and efficient operation of the railway. In response to increased physical risks, CP is developing a Severe Weather Management plan, which aims to identify contributing factors to weather-related issues and opportunities relevant to how severe weather alerts are issued and actioned. In 2022, CP received funding approval for $230,000 from Transport Canada's Rail Climate Change Adaptation Program to undertake a pilot study to design and test a framework for evaluating climate risks, using climate data and field observations across 2,700 km of CP's network in British Columbia.

CHRONIC PHYSICAL

Relevance & inclusion

Relevant, always included

Please explain

Chronic and gradual changes in global weather patterns have the potential to significantly impact CP's rail network, our customers and the commodities we transport. CP's operations are exposed to fluctuating temperatures and precipitation, which may cause costly business interruptions or damage to our rail network, infrastructure or equipment. Chronic climate-related changes that lead to increased frequency or variability of these impacts could increase reputational and market risks should freight rail in North America become perceived as less reliable or more incident-prone due to climate-driven disruption. Additionally, chronic physical climate impacts have the potential to significantly alter the supply and demand for our customers' goods (such as grains, fertilizers and other products) which could create major changes and risks to our business. Therefore, chronic physical risks are considered relevant and included in our risk assessments.

Chronic physical risks could affect our customers and the goods that we move on their behalf. CP transports large volumes of agricultural products across North America and to export markets. Variable climate conditions, changing crop varieties and shifting consumer demand have impacted the predictability of annual crop yields within the growing regions serviced by CP. Together, grain (20%), potash (7%), fertilizers and sulphur (4%) products comprised 31 percent of CP's freight revenues in 2022. Increasing variability in crop yields can result in an unexpected change in revenue or the ability of CP to respond to demand, and less predictable yields as a result of chronic climate change could have the potential to significantly impact our business. CP has annual winter planning that we utilize to limit the impact that physical risks have on our network and business.

C2.3

Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3A

Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

IDENTIFIER

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Carbon pricing mechanisms

Primary potential financial impact

Increased direct costs

Company-specific description

As a fuel-intensive industry, the freight rail sector is exposed to current and emerging carbon pricing regulations, which can significantly increase direct costs related to fuel purchases and indirect expenses related to required purchased goods and materials. Approximately 75 percent of CP's Scope 1 and Scope 2 GHG emissions are generated through our operations in Canada and are impacted by carbon pricing mechanisms. Our remaining emissions occur in our US operations and could be exposed to carbon pricing in the future.

CP is regulated under multiple carbon taxation systems and cap and trade mechanisms in the Canadian provinces in which we operate. Most provincial programs align with Canada's Greenhouse Gas Pollution Pricing Act. We regularly monitor our carbon pricing systems. In most provinces, the amount collected by our fuel suppliers is based on the current regulatory carbon pricing rates multiplied by the total volume of fuel purchased.

Through our scenario analysis, CP assessed potential risks that could occur should North America rapidly transition to a low carbon economy. In this scenario, carbon pricing rates could escalate further, and additional jurisdictions may adopt carbon pricing programs. In 2022, Canada's federal carbon tax was $50 per metric ton CO_2e, and is expected to rise by $15 per year until it hits $170 in 2030. An increase in carbon pricing rates could pose additional risks to CP's business, including increased fuel costs or carbon costs covering our emissions. Using scenario analysis, CP modelled that carbon pricing risk could introduce a potential impact of up to $544M by 2040. This estimation makes several high-level assumptions and is not meant to indicate a forecast of true costs to CP but rather presents the range of potential financial impacts to the Company. To help mitigate this risk and prioritize carbon reduction projects, CP's Capital Assessment team has set an internal carbon price, mirroring Canada's escalating federal carbon tax, to be used when evaluating capital investments.

In 2022, CP established a Carbon Reduction Task Force (CRTF), composed of the Company's industry-leading engineers and operations experts. The CRTF evaluates, recommends and implements climate action measures to reduce GHG emissions and drive performance in the direction of our science-based targets. These actions are crucial aspects of our efforts to reduce our exposure to regulatory risks and escalating carbon costs.

Time horizon
Long-term

Likelihood
Unlikely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
544,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
The stated financial impact figure was informed by a detailed scenario analysis exercise CP completed in 2020. In evaluating the risk associated with carbon pricing regulations, which could increase CP's direct costs, we modelled carbon pricing and emissions from a 2019 base year to align with the Company's 2030 science-based emissions reduction targets, including the locomotive target approved by the SBTi. To model the potential financial impacts of carbon pricing, CP followed the IEA's Sustainable Development Scenario (SDS), where carbon pricing is forecasted to rise to $186 per metric ton of CO_2e (US$140 converted at the time of the analysis) by 2040 in both Canada and the U.S. The financial impact was modelled assuming CP's GHG emissions remains consistent with 2019 levels (with no reductions through the modelling period). In this scenario, CP's potential total Scope 1 emissions would be approximately 2 M metric tons CO_2e, and total Scope 2 emissions would be 0.03 M metric tons CO_2e in 2040. It was also conservatively assumed that both would be exposed to a $186 per metric ton carbon price by 2040. Therefore, CP's costs from carbon pricing, both directly from fuel consumption and indirectly from purchased electricity, could total $591M, which would be $544M higher annually than under current prices (i.e., total 2019 baseline levels estimated at $47M, and $591M – $47M = $544M).

This estimation makes several high-level assumptions and is not meant to indicate a forecast of true costs to CP but rather presents the range of potential financial impacts to the Company.

Cost of response to risk
1,138,300,000

Description of response and explanation of cost calculation
Through our ERM process, CP assesses changing carbon pricing systems across all Canadian provinces in which we operate, as well as federal programs to ensure CP can either mitigate regulatory risks or take advantage of business opportunities. Expanded geographical coverage of carbon pricing systems and increased price per ton of GHGs emitted pose a risk to CP. Improving the energy efficiency of CP's operations and increasing the amount of energy from renewable sources will help CP minimize exposure to carbon pricing and other regulatory costs. Therefore, we continually monitor and assess new technologies or operational efficiency investments that could reduce emissions. Over the past few years, to lower CP's operational GHG emissions footprint and mitigate this risk, the Company has engaged a number of reduction initiatives, including the following: locomotive modernization and retrofitting (roughly $514M in total); purchasing more efficient grain hopper cars ($600M); the Hydrogen Locomotive Program ($15M) and the installation of a solar farm at our headquarters ($9.3M). Together, these initiatives have required $1.0383B ($514M + $600M + $15M + $9.3M= $1.1383B) of total investment through December 31st, 2022 to reduce emissions and respond to this risk.

The following is a case study of how CP is reducing carbon pricing risk by reducing the emissions impact of our operations. (S) CP has strategic landholdings located across our rail network. CP continually evaluates opportunities to utilize our land assets to add business value and reduce our environmental footprint, helping reduce risk from carbon pricing. (T) Generating renewable energy presents an opportunity to improve operational efficiency, add value to land assets, demonstrate climate action and lower CP's exposure to carbon pricing programs. (A) In 2021, CP constructed a solar farm at its Calgary headquarters. The facility spans approximately five hectares, providing covered parking for up to 500 employee vehicles and incorporates four electric car charging stations and a solar garden. This innovative project has enabled our corporate headquarters building to run on renewable electricity. (R) 2022 was the first full year that

the solar farm was operational and it generated over 4,900 MWh of electricity, corresponding to a GHG emissions savings of around 2,885 metric tons. This project has an expected timescale corresponding to its useful life of 25 years after the project completion in 2021.

Comment

IDENTIFIER

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Market

Uncertainty in market signals

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

CP's business is based on transporting a variety of commodities from suppliers to the marketplace. A number of the sectors we serve have the potential to be significantly impacted by climate-related transitional risks, including increased regulation, technology changes or shifts in consumer preference. CP's coal line of business includes both thermal and metallurgical coal materials. Our energy, chemicals and plastics line of business includes crude oil and petroleum products (liquefied petroleum gas, fuel oil, asphalt, gasoline, condensate (diluent) and lubricant oils). CP transports energy commodities supporting refinery and processing locations, as well as end-users in North America and globally.

Shifting consumer demand for lower-carbon products and increased climate-focused regulations, such as carbon pricing and fuel regulations, could initiate a broad transition in the global energy sector. Carbon pricing programs or government restrictions on certain markets may further impact current and potential freight rail customers in the energy sector, including markets of CP's energy customers. This transition could affect demand for coal, crude oil and petroleum products, the transportation of which accounted for about 16 percent of CP's total freight revenues in 2022. Coal has remained a relatively constant proportion of our total freight revenue over the last few years, from 8 percent in 2020 to 7 percent in 2022. See below for a breakdown by fuel type of the impacts of this transition risk on CP's revenue as evaluated in our scenario analysis.

- Coal: In 2020, coal freight revenue was $566M (90 percent metallurgical, 10 percent thermal). Under the SDS projections, by 2040, annual freight revenue from coal (combined metallurgical and thermal) may decrease by about 33 percent or about $187M by 2040 compared to 2020 levels.
- Crude oil: In 2020, freight revenue from crude oil was $317M. Under the SDS projections, annual freight revenue from crude oil could decrease by about 60 percent or about $190M by 2040 compared to 2020 levels.
- Petroleum products: In 2020, freight revenue from petroleum products was $513M. Under the SDS projections, annual freight revenue from petroleum products may decline by 32 percent or about $164M by 2040 compared to 2020 levels.

Together, CP's freight revenue from transporting the above fossil fuel products could decrease by $541M ($187M + $190M + $164M = $541M) on an annual basis.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

541,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

CP tracks the performance of our coal, crude oil and petroleum products business lines, which are subject to potential risks associated with shifting consumer preferences towards lower carbon-intensive energy products. These transitional risks are particularly pronounced following a low-carbon scenario developed by the IEA Sustainability Development Scenario (SDS). CP underwent a detailed scenario analysis exercise in 2020, which informs the reported financial impact figure and utilizes 2020 freight revenue as the basis for modelling calculations. Under this scenario, demand for all three business lines could decrease significantly over the medium and long term, leading to a potential reduction in CP's revenue from transporting these goods.

- Coal: In 2020, coal freight revenue was $566M. About 90 percent of this revenue is metallurgical coal, and 10 percent is thermal coal. Under the SDS projections, by 2040, annual freight revenue from coal (combined metallurgical and thermal) may decrease by about 33 percent or about $187M by 2040 compared to 2020 levels.
- Crude oil: In 2020, freight revenue from crude oil was $317M. Under the SDS projections, annual freight revenue from crude oil could decrease by about 60 percent or about $190M by 2040 compared to 2020 levels.
- Petroleum products: In 2020, freight revenue from petroleum products was $513M. Under the SDS projections, annual freight revenue from petroleum products may decline by 32 percent or about $164M by 2040 compared to 2020 levels.

Together, CP's freight revenue from transporting the above fossil fuel products could decrease by $541M ($187M + $190M + $164M = $541M) on an annual basis.

The $541M decrease in freight revenue calculated above is considered a conservative estimate. This does not include other potential risks such as potential revenue losses due to competition from alternative modes of transportation or freight rail's exposure to increase fuel-related costs in the SDS scenario.

This estimation makes several high-level assumptions and is not meant to indicate a forecast of true costs to CP but rather presents the range of potential financial impacts to the Company.

Cost of response to risk

118,200,000

Description of response and explanation of cost calculation

CP's business strategy includes forecasting and managing against fluctuating market conditions associated with climate-related transitional risks and incorporating them into our ERM process.

(S) With fossil fuel markets being highly volatile and dependent on several factors, demand for CP's crude oil transport is subject to global oil demand, oil prices, production rates and pipeline capacity. (T) While some market changes are unavoidable, a crucial part of CP's business strategy requires key investments to realize opportunities and mitigate risks and/or maintain our current market share in transporting certain goods. (A) CP has developed rail capacity and logistics services to support innovative petroleum product transloading facilities such as Diluent Recovery Units (DRU). The DRU process allows energy producers to remove highly flammable diluent materials from crude oil before transport by rail tank car. Additionally, removal allows for a larger volume of product to ship in each tank car, reducing costs and GHG emissions compared to traditional loads. Increasing rail capacity and logistics services promotes the resilience of CP's crude oil business, reduces transportation safety risks and improves competitiveness with other transport forms. By improving our ability to transport crude oil, CP provides an energy-efficient alternative to pipeline transport for energy customers. These actions and investments help to maintain market share and mitigate the impact that would otherwise result from reduced demand. (R) To support the DRU project, CP has invested in infrastructure upgrades to increase network capacity to accommodate additional freight volume. The timescale of these investments is ongoing and includes upgrades in 2022. While the potential increase in associated freight volumes resulting from the DRU initiative has not been measured, CP will continue to monitor this sector and take proactive measures to reduce market risks.

Some of the specific initiatives and investments that CP has taken to increase network capacity include upgrading rail sidings and extending some of our rail yards. Between 2016 and 2022, examples of these include, but are not limited to, investing $4.0M to extend our Ottumwa rail yard in Iowa, new rail sidings in Metiskow, Alta. ($7.8M) and Fredensthal, Man. ($8.5M) and an investment of $97.9M to renew track ballast to accommodate increased rail capacity. The reported $118.2M figure is a combination of these investments.

Comment

IDENTIFIER

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Other, please specify

Wildfires and Flooding

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

As a transcontinental railway company, CP is exposed to a variety of periodic severe weather conditions and natural disasters such as floods, fires, extreme temperature and precipitation, which may cause business interruptions and adversely affect CP's rail network. This can increase costs and liabilities and decrease revenues, which may significantly affect operational results, financial condition and liquidity. In particular, changes in temperature and precipitation patterns can lead to events that affect railway operations, such as wildfires and/or flooding. These events can happen throughout the network but are primarily a concern on floodplains or in mountainous regions of our network. Two areas of CP's rail network at significant risk of physical risk events are segments of track through the Rocky Mountain regions of Alberta and British Columbia (which include CP's Cascade, Columbia, Nelson, Cranbrook, Windermere and Fording River subdivisions) and along the Mississippi River in the U.S. Midwest (including CP's Davenport, Nitrin, Marquette and Tomah subdivisions). Combined, these subdivisions account for approximately 1,546 track miles or 12 percent of CP's main track network. Other areas of CP's operations that are vulnerable to physical climate risks include our mainline track in Southern Manitoba, along the Red River. With the effects of climate change expected to intensify, CP continues to focus on improving planning and mitigating measures to harden infrastructure in areas with historical risks.

Over the past few years, CP experienced severe weather challenges in all of the aforementioned regions, including wildfires, flooding and landslides. Most notably, in 2021, wildfires in British Columbia resulted in a shutdown of CP's rail operations through the area for 9 days. Later that year, CP experienced further climate-related physical impacts to our operations due to a major precipitation event, which led to flooding and landslides. This event led to a 10-day shutdown of CP's rail operations through the area and caused damage at 30 locations across CP's Thompson and Cascade subdivisions, with 20 of these considered major and resulting in significant loss of infrastructure. While some of these physical events lead to a temporary closure of operations, CP is also working proactively to limit the impact of physical risks, through risk assessments and implementing infrastructure upgrades, which have helped improve network resiliency.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

25,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

In 2013, large flooding events created difficult rail operating conditions and network outages throughout Western Canada negatively impacting revenue by an estimated $25M. The loss in revenue was the result of a decrease in freight shipments from CP's intermodal, bulk and merchandise lines of business experienced during the flood event. Reflecting on the financial impact of past flood events as an indicator of anticipated costs for future events (without adaptive measures to manage this risk), it is clear that major flooding-related operations disruptions can affect CP revenues. CP utilizes $25M as an estimate

of the monetary impact of similar magnitude flood events. Impacts from these types of events are highly variable based on the severity and length of the event and network impact. The financial impact figure of $25M represents the potential costs from flooding events in just one region. This value is used for the potential impact figure as it is representative of one of the most impactful events to date in which information can be shared publicly. This figure is not representative of total annual costs but instead provides an estimate of the potential impact of future similar localized flood events.

Cost of response to risk

1,048,000,000

Description of response and explanation of cost calculation

Infrastructure improvements and emergency preparedness planning are used to mitigate potential risks posed by weather events. Mitigation measures depend on the hazard and can include seasonal flood plans, winter operating and contingency plans and/or vegetation management plans. In response to the increasing number of physical risk events, CP, with funding support from Transport Canada's Rail Climate Change Adaptation Program is undertaking a pilot study to design and test a framework for evaluating climate risks, using climate data and field observations across 2,700 km of CP's network in British Columbia. (S) CP's rail network and the physical infrastructure required to operate its freight transport business traverses terrain exposed to severe weather conditions. (T) As physical events impacting our network increase in frequency and severity, CP is tasked with implementing mitigation measures to improve the resilience of our operations. (A) Specifically, CP has implemented actions and initiatives that include, but are not limited to, seasonal severe weather planning and preparedness, community emergency planning and first responder training and drills. CP also undertakes proactive measures to limit the potential impact of physical events. For example, over the past decade CP has worked to anticipate flooding and build resiliency into our track infrastructure. This includes raising our mainline track and bridges in Southern Manitoba to mitigate the threat of spring flooding from the Red River. This work included raising the track bed by approximately 80 cm at Emerson, Man. and increasing the elevation of six rail bridges by as much as two feet. (R) As a result CP was able to maintain rail operations during a flood in the spring of 2022 while other railways halted local operations. The 2022 spring flood was the largest flood event on the Red River in Manitoba since 2009, and one of the largest floods on record. The timescale of this initiative and these actions has occurred over the past decade, and will help maintain network resiliency going forward.

In 2022, the total cost for CP to respond to and mitigate physical climate-related risks as well as improve network resiliency was approximately $1,048M. This total included $967M to renew depleted assets, namely rail, ties, ballast, signals and bridges and $81M in network improvements and growth initiatives. The $1,048M includes the costs incurred by CP to respond to physical risk events specific to 2022.

Comment

C2.4

Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4A

Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

IDENTIFIER

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Demand to ship goods and materials by rail, particularly for intermodal container shipments is increasing in North America. As this demand grows, CP's current and prospective customers are increasingly looking for opportunities to reduce carbon footprint associated with their supply chains. Transporting freight by rail is about four times more fuel efficient than shipping by truck and produces about 75 percent less GHG emissions. As customer demand continues to increase for low-carbon services, the inherent carbon intensity advantage of CP's rail services over other modes of transportation presents a significant opportunity to generate additional revenue. This opportunity is anticipated to be most pronounced for CP's intermodal services, where products are readily transitioned from highway truck transport to freight rail service. CP is experiencing an increase in demand for intermodal services, which has increased from 22 to 26 percent of our freight revenue between 2021 and 2022, reflecting an increase of nearly 3.5B RTMs.

Through our scenario analysis exercise, CP considered multiple energy transition pathways developed by the IEA to understand potential impacts on the transport sector. The Base Scenario, grounded on existing and planned policies, forecasts a significant increase in North American freight rail activities. A High Rail Scenario assumes increased GHG policy effort and substantial investment in rail infrastructure. In this scenario, freight rail services replace significant demand from alternative modes such as road freight. Following the IEA's projections for future growth in North American freight rail demand (under a high rail scenario), CP's total freight revenues could increase from $7.541B in 2020 to nearly $9.7B by 2030. This is not a projection of CP's anticipated freight revenue position in 2030, but rather an illustration of the potential opportunity should the future align with the IEA High Rail Scenario.

To take advantage of this opportunity, CP continues to invest in our rolling stock equipment. In 2022, CP capital expenditure included $84M on enhancing our locomotive fleet and approximately $159M to acquire new covered hopper cars for grain transportation. In 2022, we also launched a web-based Carbon Emissions Calculator, designed to provide users with the ability to calculate and compare an estimate of the GHG emissions related to transportation of freight by CP's rail services versus heavy haul trucking alternatives.

Time horizon

Long-term

Likelihood
Likely

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)
2,800,000,000

Potential financial impact figure – maximum (currency)
3,700,000,000

Explanation of financial impact figure
In 2020, CP undertook a scenario analysis, which is used to inform the potential financial impact figure and utilizes 2020 freight revenue as the basis for modelling calculations. In 2020, CP's freight revenues were $7.541B. In future scenarios, there is likely to be increased customer demand for low-carbon services provided by CP, related to the inherent energy efficiency benefits and carbon intensity savings of transporting goods by freight rail over other modes of transportation. An increase in demand for low-carbon services could correspond to an increase in our freight revenue. Using climate-related scenario analysis, we projected the increases in freight rail under the Base Scenario, in which North American freight rail growth could increase at a 1.8 percent compounding annual growth rate until 2030 and then at a 1.36 percent rate until 2040. Annual freight revenues could reach $10.32B ($7.541B*(1+0.018)^10 = $9.01B; $9.01B*(1+0.0136)^10 = $10.32B) by 2040, which represents an increase in annual freight revenues of $2.8B above current levels by 2040 ($10.32B is about $2.8B greater than $7.541B). Under the more ambitious High Rail Scenario, North American freight rail could grow 2.33 percent annually until 2030 and then by 1.69 percent until 2040. Annual freight revenues would then reach $11.23B ($7.541B*(1+0.0233)^10 = $9.49B; $9.49B*(1+0.0169)^10 = $11.23B) by 2040, which is an increase of $3.7B above current levels ($11.23B is about $3.7B greater than $7.541B). These estimates are intended to illustrate the potential for business growth should the future align with the IEA High Rail Scenario. The values presented here are not intended to provide a projection of future revenue at CP.

Cost to realize opportunity
40,858,900,000

Strategy to realize opportunity and explanation of cost calculation
CP is undertaking efforts to realize the opportunity associated with growing demand for freight rail services. This has included our strategic approach to business growth, highlighted by our US$31.243B ($40.616B) acquisition of KCS (completed in 2023). This acquisition will help a combined CPKC to take further advantage of the environmental and operational efficiencies of freight rail. In addition, CP's continued investment in increasing operational efficiency will also help to realize this opportunity. These investments in 2022 included upgrading existing locomotive fleet, rail cars, and containers for renewal of depleted assets and resulted in increased fuel efficiency and reduction in GHG emissions. In 2022, CP invested $84M in upgrading the existing locomotive fleet and $159M in rail cars and containers for the renewal of depleted assets, totalling $243M ($84M + $159M = $243M). Therefore, the total cost to realize this opportunity is presented as a combination of these amounts ($40.616B + $243M = $40.859B).

(S) CP has been working to grow our network to offer more destinations and routing options for our customers and the North American logistics supply chain. This includes our 2020 acquisition of the Central Maine & Quebec Railway, which extended our network reach to the East Coast for the first time in 25 years. (T) CP continues to explore opportunities to expand the reach of our network, and grow our capabilities to provide reliable, safe and environmentally friendly services to our customers and other stakeholders. (A) To help realize the opportunity associated with increased demand for freight rail due to climate and environmental considerations CP's efforts revolved around merging with KCS railroad in 2022. The acquisition was approved by the STB in March 2023 and was completed in April 2023 to form a combined railroad company, CPKC. Following completion, CPKC will become the only railway spanning Canada, the U.S. and Mexico, with a much larger integrated and more competitive network. The timescale of integration for CPKC is expected to occur over the next five years. (R) The merger is anticipated to avoid more than 1.9M metric tons of GHG

emissions compared to current operations, including through the diversion of 64,000 truck shipments to rail. By expanding our intermodal services to help divert these trucks, the acquisition is also expected to reduce total truck vehicle miles by 2B miles over the next two decades.

Comment

IDENTIFIER

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of new technologies

Primary potential financial impact

Reduced direct costs

Company-specific description

CP has published its Climate Strategy to align our approach to climate action with leading scientific practices and policy guidance. Through our strategy, we have established two emissions reduction targets through 2030, one covering the full life cycle of CP's locomotive activities, which has been approved by the SBTi, and another covering non-locomotive activities. While CP will continue to improve locomotive fuel efficiency through equipment upgrades and fleet modernization, achieving our science-based emissions reduction target will require the exploration of new decarbonization solutions. As we work towards our targets, CP will focus on existing emissions reduction technologies and market-ready renewable fuels while evaluating the alternative propulsion technologies necessary for longer-term reductions in GHG emissions in the freight rail industry.

Hydrogen fuel cell/battery hybrid propulsion technology is being tested worldwide as a viable alternative fuel for the transportation sector, with particular promise for rail and other long-haul heavy freight transportation systems. Hydrogen technology, if proven successful at scale, has the potential to reduce GHG emissions for railway locomotives and offer additional benefits such as reduced operational noise and vibration compared to diesel-electric engines.

CP is building North America's first line-haul hydrogen-powered locomotive using fuel cells and batteries to power the locomotive's electric traction motors. Hydrogen fuel cells supported by battery technology are being integrated into existing locomotive platforms to power the electric traction motors. With over 30,000 diesel-electric locomotives in freight service across North America today, a solution to retrofit the locomotive power plant with a combination of hydrogen fuel cells and battery technologies is critical to reducing the carbon footprint of the freight rail sector. In 2022, the Company advanced production on three hydrogen locomotive conversions and installing hydrogen production and fueling facilities. This industry-leading project is demonstrating the technical performance in real-world operations and generating critical industry knowledge and experience that is informing future commercialization and development activities. CP's Hydrogen Locomotive program passed a significant milestone in 2022 by completing the first successful movement and freight service testing on the initial hydrogen locomotive.

Time horizon

Long-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

599,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

CP underwent a scenario analysis exercise in 2020, which is used to inform the reported financial impact figure and utilizes 2020 as a base year when modelling future projections. Using climate-related scenario analysis, CP evaluated how higher carbon prices under the IEA's SDS might amplify petroleum fuel costs moving forward. Under this low-carbon scenario, carbon pricing in Canada has the potential to rise to $239/metric tons CO_2e by 2050. In this circumstance, an early investment in decarbonization could deliver significant annual savings. CP's continued investment in new technologies, including our Hydrogen Locomotive Program, could help reduce our operational emissions and lead to reduced direct costs associated with the purchase and use of fuel. CP's scenario analysis exercise estimates that carbon neutral operations across our freight rail network between Vancouver and Montreal could save 1.093M metric tons CO_2e and reduce fuel costs by $338M annually. Under the SDS, where carbon prices rise to $239/metric tons CO_2e, emissions savings correspond to an estimated $261M in annual carbon cost savings by 2050. Therefore, taking proactive emissions mitigation measures could total $599M in potential financial impact (sum of $338M and $261M).

These estimates are intended to illustrate the potential for cost savings should the future align with the IEA's SDS. The values presented are not intended to provide a projection of CP's future cost savings. The analysis does not take into account changes in costs of electricity, diesel or other technological changes that may arise.

Cost to realize opportunity

30,000,000

Strategy to realize opportunity and explanation of cost calculation

CP is working to develop North America's first hydrogen-powered line-haul freight locomotive by retrofitting a diesel-powered locomotive with hydrogen fuel cells and battery technology to power the locomotive's electric traction motors.

(S) CP's locomotive operations account for more than 95 percent of total Scope 1 and 2 emissions. While CP regularly outperforms industry averages for fuel efficiency, we are committed to further improving the carbon footprint of our locomotives. (T) Hydrogen fuel cells are an emerging technology with the potential to reduce emissions from the difficult to decarbonize heavy haul freight and rail transportation sectors. CP is working to realize these opportunities through our Hydrogen Locomotive Program. (A) In 2020, CP announced plans to develop North America's first line-haul hydrogen-powered locomotive through a Hydrogen Locomotive Program. CP is retrofitting diesel locomotives with hydrogen fuel cells and battery hybrid propulsion technology using commercially available components. These conversions are overseen by CP's team of expert engineers and supported by an inhouse laboratory to enable end-to-end testing and integration of hydrogen and battery technologies. The program also includes development of hydrogen production and fueling facilities in Calgary and Edmonton. Both facilities will include electrolysis technology to produce hydrogen from water with the Calgary plant to operate on renewable power from the solar energy project at CP's headquarters. (R) In recent years, CP received funding from the ERA to help increase the number of hydrogen conversions from one to three and add the hydrogen production and fueling facilities described above. The timescale for implementing to Hydrogen Locomotive Program began in 2020 and will run through at least 2025 as CP develops the program.

The combination of CP's investment in the development of the Hydrogen Locomotive Program, as well as the funding received from ERA, make up the cost to realize this opportunity. The 50/50 matching funding from ERA's Shovel Ready Challenge program contributes $15M and builds on a $15M investment CP already planned to put into this program. The total cost is the sum of these investments, equaling $30M.

Comment

IDENTIFIER

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new markets

Primary potential financial impact
Increased revenues through access to new and emerging markets

Company-specific description
CP transports several energy-related commodities that support the transition to renewable energy, including biofuels. In 2022, CP's revenue from transporting biofuels was $256M. Increased regulatory pressure and customer demand are expected to support market growth for biofuels representing a growth opportunity for CP. For example, the Canadian government, Manitoba, British Columbia, Ontario and other Canadian provinces have proposed changes to regulatory fuel standards expected to increase market demand for ethanol, biodiesel, renewable diesel and other renewable products for fuel blending operations to meet regulatory limits. Specific to ethanol, in 2020, Ontario began mandating that fuel suppliers maintain an annual average of 10 percent renewable content in gasoline blends in Southern Ontario and Quebec is consulting on establishing a proposed mandate of 15 percent ethanol by 2025. This change in renewable fuel blending standards in Eastern Canada, up from a five percent minimum previously, is expected to double the demand for transportation of ethanol products in these markets. CP operates in these markets and therefore expects to see a related impact in revenue. Numerous provinces, including Alberta, Manitoba and Saskatchewan have established renewable diesel mandates, and the Canadian Government has recently implemented clean fuel regulations expected to increase demand for renewable fuel content. An additional example of new market opportunities relates to the development of renewable energy production in Alberta, including wind energy. CP has been a critical partner in supporting this transition and is currently engaged in several multi-year projects to transport 1,300 megawatts of wind turbine materials into the Alberta marketplace. As demand for wind energy increases in North America, CP's ability to carry and handle the large equipment necessary for wind energy production could support increased revenue from wind-related transport in the short-, medium- and long-term time horizons.

Through scenario analysis and CP's Climate Strategy, CP is evaluating emerging technologies, such as hydrogen-powered locomotives and renewable energy, to maximize opportunities in the expanding renewable fuel market. Beyond transporting biofuels, we are also investing in initiatives to use biofuels in our own operations. In 2022, CP applied for funding to implement a biofuel pilot study in our locomotive fleet going forward.

Time horizon
Long-term

Likelihood
More likely than not

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
236,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
The results of CP's scenario analysis process were used to inform the reported financial impact figure. This projection utilizes CP's 2020 freight revenue as the basis for modelling calculations. Through this process, CP identified a potential opportunity to increase freight revenues for new and developing energy markets, which are projected to grow in a low-carbon future. Increasing demand from primary fuel suppliers for renewable fuel materials to meet emerging regulatory requirements is expected to boost demand for freight rail services to transport biofuel products. In 2020, CP generated $256M from transporting biofuel products.

CP included the IEA's SDS scenario as part of our scenario analysis. Under this scenario, annual freight revenue from biofuels could approach $492M by 2040, an increase of $236M above current levels. This figure was calculated by applying the IEA's projected growth rate in North American demand for bioenergy, assuming a linear growth rate from 138 million tons of oil equivalent (Mtoe) in 2019 to 278 Mtoe in 2040. An increase to 278 Mtoe represents a 192 percent growth in demand compared to 145 Mtoe in 2020, based on a linear growth

rate between 2019 and 2020. Applying the same assumed level of growth to CP's 2020 biofuels freight revenue of $256M, this could result in revenues of $492M by 2040 ($256M * 1.92 = $492M), or $236M over current levels ($492M - $256M). These estimates are intended to demonstrate the potential in business opportunities under a 2-degree-aligned SDS. The values presented here are not intended to provide a projection of future revenue at CP.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

CP's marketing and sales teams work with potential biofuel and other renewable energy customers on a regular basis.

(S) Specific to wind energy, as the demand for renewable energy increases, CP is well-positioned to support the transportation of new energy products and equipment. Services provided to wind sector customers are included in CP's machinery and dimensional portfolio. CP has a designated team responsible for understanding market fundamentals and creating a playbook for how CP can participate and secure business in this area. (T) CP is an active participant in the wind sector and has a team of professionals that help to promote the work of moving wind turbines and other tasks associated with this portfolio. (A) CP leverages our transportation and property assets to provide a critical service to support Alberta's expanding renewable wind energy generation capacity. CP has been a critical partner in supporting this transition and is currently engaged in several multi-year projects to transport 1,300 megawatts of wind turbine materials into the Alberta marketplace. Due to the size of the wind turbine materials, transporting large wind system components and turbines by rail requires careful planning, shipment modelling, coordination and detailed project management with the wind sector producers. To support the transport of wind turbines and related materials, CP has provided wind sector producers access to land near rail assets for staging cranes and other equipment necessary to load and unload the materials from trains. (R) Utilizing available property resources and extensive transportation expertise, CP can support the Alberta wind power generation sector and realize a partnership opportunity that may contribute to increased freight revenue from wind energy moving forward. The timescale of these actions has been over the last 15 years through 2022. CP intends to monitor wind energy market trends, as well as attend conferences and customer events to stay current with the market and projects being announced.

The wind energy sector has long been a part of our machinery and dimensional transportation service portfolio. Given that these initiatives are part of CP's existing business, there is no additional cost associated with realizing this opportunity. Subsequently, the additional cost to CP to implement this opportunity is reported as $0.

Comment

C3. Business strategy

C3.1

Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

Climate transition plan

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a climate transition plan within two years

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

Published in 2021, CP's Climate Strategy charts the Company's path to reduce GHG emissions, adapt our operations to the physical risks of climate change and integrate climate factors across the business. This Climate Strategy focuses on our efforts to achieve our emissions reduction targets, including a locomotive emissions reductions target that has been approved by the SBTi. The Climate Strategy also includes discussion of climate-related risks and opportunities, greenhouse gas emissions reduction levers, stakeholder engagement and how we are integrating climate across our business. While this strategy has elements of a climate transition plan, it is not aligned with a 1.5°C world, and is instead focused on achievement of our well-below 2-degree targets. Following completion of CP's acquisition of KCS, in June 2023, we have committed to working with the SBTi within the next two years to establish a GHG emissions reduction target aligned with a 1.5°C future and supporting the global economy to achieve net zero emissions by 2050, and we are exploring the development of a successor Climate Strategy focused on achievement of such 1.5°C target.

C3.2

Does your organization use climate-related scenario analysis to inform its strategy?

Use of climate-related scenario analysis to inform strategy

Yes, qualitative and quantitative

C3.2A

Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario

Transition scenarios

IEA SDS

Scenario analysis coverage

Company-wide

Parameters, assumptions, analytical choices

CP uses the IEA's Sustainable Development Scenario (SDS) to help evaluate potential business impacts, which assumes global warming is limited to 2 degrees Celsius due to several anticipated regulatory, technological and societal lifestyle changes. This was compared to the IEA baseline scenarios as presented in the Current Policies and New Policies scenarios. Where CP's internal market projections were available, this information was combined with IEA scenario projections to identify potential impacts on the company. Where not available, CP's market share was used as the baseline from which to model the financial impacts of the different scenarios.

Where possible, data addressed trends for 2030 and 2050 to identify potential medium- and long-term impacts and illustrate how risks and opportunities might evolve over time. This approach provides CP with insight into various pathways

the U.S. and Canadian economies could follow in the future, revealing helpful information for business planning processes.

Scenario analysis results provide insight into how CP's business may be impacted by climate change. The process highlights key financial risks of climate-related issues in varying global warming scenarios while identifying plausible solutions to reduce these risks to CP.

Climate-related scenario

Physical climate scenarios
RCP 8.5

Scenario analysis coverage

Company-wide

Parameters, assumptions, analytical choices

CP drew upon publicly available scenarios from the Intergovernmental Panel on Climate Change (IPCC) to model physical risks. The IPCC scenario 8.5 assumes a global temperature increase of four degrees Celsius, representing significant physical climate risks, including extreme temperatures, weather events, flooding and sea-level rise. CP used geographic information system modelling to evaluate several locations across the rail network to understand how physical impacts associated with this climate change scenario could affect railway operations. This physical risk exercise covered CP's entire operations, with an additional focus on five key operating sites across our network.

Where possible, this evaluation included global warming data and trends specific to 2030 and 2050 to understand the potential medium- and long-term impacts.

Scenario analysis results provide insight into how CP's business might be impacted by climate change. The process highlights key financial risks of climate-related issues under varying global warming scenarios while identifying plausible solutions to reduce CP's climate-related risks. Operating a 13,000-mile rail network across North America exposes CP to both acute and chronic physical risks, including:

- Acute physical impacts from exposure to increasing extreme weather and precipitation events could damage CP's rail infrastructure, possibly disrupting rail operations.
- Chronic changes such as sea-level rise in key coastal locations and changing temperature conditions, could lead to significant disruptive impacts across CP's network and infrastructure.

C3.2B

Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Focal questions

How will climate-related risks and opportunities affect our business?
Where should we best invest to counter climate change threats and capture opportunities?

Results of the climate-related scenario analysis with respect to the focal questions

CP conducted scenario analysis in 2020 to model the financial impacts of potential climate-related risks and opportunities. Through this process, CP identified potential exposure to the following risks and opportunities:

Policy:

- Carbon Pricing: New or additional carbon pricing could lead to increased costs.
- Fuel Efficiency: CP's inherent efficiency advantage over trucking may be amplified by climate-related regulations.

Technology:

- Fuel Switching: Switching railway operations to renewable fuels and/or alternative propulsion can reduce fuel consumption and associated carbon costs.
- Trucking Competition: Technology leading to the decarbonization of highway transport may lead to increased competition.

Markets:

- Coal Markets: CP's coal transportation line of business represented eight percent of freight revenue in 2020. Scenario analysis identified that decreasing coal demand could impact CP's revenue by as much as $187M annually by 2040.
- Energy Markets: CP's energy, chemicals and plastics transportation line of business represented 20 percent of freight revenue in 2020. Scenario analysis identified that decreasing consumer demand for certain energy commodities, such as crude oil and petroleum products, could impact CP's revenue by as much as $354M annually by 2040.
- Freight Rail Demand: Decarbonization of the broader transport sector may expand demand for freight rail services and increase CP's revenue.

CP also conducted a detailed scenario analysis of physical risks. This process examined CP at a network level with a corresponding analysis of critical operating locations perceived to be vulnerable to specific physical risks. This included our coastal operations in Canada, which may be susceptible to sea-level rise, as well as portions of CP's inland network that are at risk from flooding or wildfires. CP is working to adapt our response to physical risks based on experienced events and scenario analysis outcomes. Specific actions, in response to experienced physical events and aligned with scenario analysis findings, include continued investment in asset and network resiliency as well as applying for and receiving funding to undertake a pilot study to test a program for evaluating climate risks across 2,700 km of our network in British Columbia.

Results of CP's scenario analysis have identified areas where further investments can mitigate climate-related risks and capture opportunities. These results have informed numerous actions that CP has taken in relation to our focal questions, to capture climate-related opportunities. This includes investment in our upgrading our locomotive fleet and our Hydrogen Locomotive Program. Starting 2012 to 2022, CP has upgraded over 400 locomotives, which helps to maintain CP's inherent efficiency advantage over trucking sector competitors. Additionally, our Hydrogen Locomotive Program, starting in 2020, represents an opportunity to implement low-carbon fuels across our rail operations.

C3.3

Describe where and how climate-related risks and opportunities have influenced your strategy.

PRODUCTS AND SERVICES

Have climate-related risks and opportunities influenced your strategy in this area?

Yes

Description of influence

Efficiency plays a central role in CP's strategy around products and services. According to the FRA, railways are the most efficient and low-carbon form of transporting freight, long distances over land. Our ability to offer customers fuel-efficient, lower-carbon services is a climate-related opportunity for CP. Using less fuel per ton of freight will reduce our exposure to increasing fuel costs, regulatory risk and escalating carbon pricing programs. CP is identifying and implementing further strategies that will help realize this opportunity, including our recently completed acquisition of KCS. This will help our business to further realize future environmental benefits, including an anticipated reduction of 1.9M Metric Tons CO_2e emissions over the next five years.

(S) As a highly fuel-efficient operation, CP is well-positioned to grow our business while meeting customer expectations for lower carbon freight services. (T) CP's business strategy involves improving operational and resource use efficiency to deliver low carbon, less fuel-intensive freight services.

(A) An example of CP's strategic approach includes the implementation of our high-efficiency product grain train (HEP train). The HEP train model will enable CP to carry 40 percent more grain per train, reducing the required total number of train starts, fuel consumption and GHG emissions versus conventional grain shipments. To support the HEP train model, CP purchased new high-capacity grain hopper cars as part of a $600M multi-year investment. These new cars have nearly 10 percent more capacity than the old cars and a shorter car length

allowing for more cars to operate within a single grain unit train. Following project completion in 2022, there were 5,900 new high-capacity grain hopper cars in operation across our network. (R) The capacity improvements associated with these projects have enabled CP to enhance Canadian grain products shipments. We broke our all-time monthly record for shipping Canadian grain and grain products, moving 3.14M metric tons (MMT) in October 2022. By the end of 2022, more than 50 percent of origin grain elevators served by CP were capable of supporting HEP train operations. CP's significant investments in the HEP train model product is an example of how current business decisions are supporting climate risk mitigation in the medium and long term.

SUPPLY CHAIN AND/OR VALUE CHAIN

Have climate-related risks and opportunities influenced your strategy in this area?

Yes

Description of influence

CP conducted scenario analysis to assess climate-related risks and opportunities within major customer markets that the company serves. Specifically, CP looked at how changes in coal and energy markets might occur across multiple climate scenarios. This process identified how changes in CP's downstream value chain could impact our future financial performance. In 2022, CP's energy, chemicals and plastics (ECP) and coal customers accounted for 16 percent and seven percent of our freight revenue, respectively. The findings of scenario analysis have helped inform our customer engagement strategy and enhanced our understanding of how market-specific demand for freight rail transportation could evolve over time. CP's scenario analysis evaluated how climate-related risks and opportunities might impact customer markets through 2050.

(S) Climate change is anticipated to impact the volatility of specific industrial sectors and markets, particularly energy products. (T) CP conducted a scenario analysis to evaluate and mitigate potential climate-related risks in CP's downstream value chain, including how our customers and the markets they serve could be affected by climate change. (A) CP examined energy-related business lines through scenario analysis, including coal, petroleum products, crude oil, biofuels and wind. Under a 2-degree-aligned future scenario, it was identified that CP could simultaneously experience a future decrease in revenue from petroleum products, crude oil and coal and a revenue increase from the transportation of biofuels and wind power generation equipment. (R) The outcomes of scenario analysis are influencing CP's business strategies and customer engagement practices, including engagements with wind energy developers in Alberta or ethanol producers in the U.S. Midwest.

Building on the outcomes of scenario analysis and increasing interest from the Company's value chain, CP launched a Carbon Emissions Calculator in 2022. This web based tool is designed to give customers greater insight into the carbon footprint of their freight rail transportation services. The tool enables complex, tailored emissions calculations and incorporates customer-specific shipping details to estimate route and commodity-specific greenhouse gas emissions.

INVESTMENT IN R&D

Have climate-related risks and opportunities influenced your strategy in this area?

Yes

Description of influence

Adopting emerging technology to enable the delivery of low-carbon services for our customers is a key element of CP's business strategy. Given the complexity of reducing emissions in the transportation sector, researching and developing next-generation fuels, efficiency technologies and fuel alternatives for the rail sector will be critical as the industry decarbonizes operations. In 2022, CP established a Carbon Reduction Task Force (CRTF) to progress our Climate Strategy and drive our decarbonization efforts. Reporting to the Executive Sustainability Steering Committee, the CRTF evaluates, recommends and implements climate action measures to reduce GHG emissions and drive performance in the direction of our science-based targets.

(S) Hydrogen fuel cell/battery hybrid propulsion technology is being tested as an alternative fuel in the transportation sector, in particular for freight rail systems. If proven successful at scale, hydrogen technology could significantly reduce the GHG emissions from freight railway operations. (T) Since December 2020, CP has been developing North America's first line-haul hydrogen-powered locomotive. (A) CP's engineering and mechanical experts are leading this program to research, develop and test the conversion of existing diesel-powered units

into hydrogen-electric locomotives. The first locomotive in this program has been completed, with a second and third locomotive currently under production. (R) CP's program is intended to spur innovation, demonstrate leadership and encourage collaboration to expedite the advancement of zero-emission fuel cell technology for the freight rail sector. In October 2022, CP's hydrogen locomotive, CP 1001, performed its second mainline test and first revenue move, pulling seven freight cars from a customer facility in Calgary. CP engineers have also undertaken two additional hydrogen locomotive conversions. Two hydrogen production and fueling facilities are expected to be completed in 2023.

In 2021, CP received $15M in funding from Emissions Reduction Alberta, to expand the project. This funding is being used to install hydrogen production and fueling facilities and expand from one to three hydrogen locomotive conversions. The fueling facility in Calgary will include an electrolysis plant to produce hydrogen from water operating on renewable power from the solar farm at CP's headquarters.

OPERATIONS

Have climate-related risks and opportunities influenced your strategy in this area?

Yes

Description of influence

Continued investment in optimizing the rail network, coupled with locomotive fleet improvements, has enabled CP to operate one of the most fuel-efficient freight railways in North America. Climate-related opportunities, such as increasing customer expectations for reliable, efficient, low-carbon transportation services, have influenced our operations. Since 1990, CP has improved locomotive fuel efficiency by 43 percent through a variety of programs and technology deployments. In addition to implementing actions to reduce the emissions impact of our locomotive fleet, CP is also looking at opportunities to reduce the environmental and climate impact of our non-locomotive operations. Specifically, in 2022, CP undertook a study assessing the emissions impact of the planned expansion at our Bensenville yard.

(S) Although a smaller impact than our locomotives, CP has Scope 1 and 2 emissions that result from the operations of our facilities and other assets. (T) To reduce the impact associated with this component of our operations, CP is investigating initiatives and programs that will help our railyards operate more efficiently. (A) CP completed a sustainability study in conjunction with a planned expansion for our Bensenville yard and in line with our Climate Strategy. This study focused on existing GHG emissions and energy efficiency opportunities at the yard, which has generated about 3,000 metric tons of GHG emissions during the past few years. (R) Results of the study indicate numerous opportunities to reduce the energy and emissions impact of the yard expansion. This includes developing on-site renewable electricity generation capacity, as well as other opportunities to reduce the emissions impact of the yard's operations. Further results will manifest as the expansion develops and CP continues to integrate sustainability considerations into all our operations.

As part of ongoing due diligence associated with annual GHG emissions reporting, CP has identified changes in energy data that may have an impact on year-over-year performance against our non-locomotive emissions target. As we continue to implement solutions to reduce scope 1 and 2 emissions from our business, we are also working to enhance emissions data reporting accuracy by integrating CPKC energy management systems.

C3.4

Describe where and how climate-related risks and opportunities have influenced your financial planning.

Financial planning elements that have been influenced

Capital expenditures

Description of influence

Operating and maintaining a transcontinental railroad is capital intensive. CP annually allocates significant capital funds to enhance the resiliency and efficiency of our locomotive fleet, rolling stock and rail network. Executing CP's Climate Strategy requires deploying new data management systems, advanced technologies and next-generation renewable fuels to mitigate GHG emissions. Given the limited availability of financial and people resources, successfully implementing our Climate Strategy will require an innovative approach to business planning.

Capital expenditures:

The process of allocating capital resources is a cornerstone of CP's financial planning cycles. How the company allocates capital resources directly influences business performance and operating ratio (as measured by dividing total operating expenses by total revenues). Capital planning decisions are increasingly influenced by climate-related risks and opportunities, including carbon pricing and evolving customer preference for low-carbon transportation solutions. Continuing to deliver highly efficient and cost-effective transportation services supports a strong operating ratio performance and is a key focus of CP's short-term planning processes. However, due to the long life cycle of locomotives and other capital investments, financial planning in this area also influences medium- to long-term business performance. As a result, CP prioritizes investments in projects with the ability to provide both immediate and long-term operational resource and fuel efficiency benefits.

A key objective of CP's growth model is investing in projects that directly benefit operational efficiency, including fuel and energy savings opportunities. Our financial planning process supports capital expenditures to meet this objective. In 2022, CP invested $243M to renew depleted assets, encompassing $84M in locomotive upgrades and $159M in rail car and container improvements, including the acquisition of high-capacity hopper cars for grain transportation.

(S) CP consumes a significant volume of diesel fuel as part of our locomotive operations representing the vast majority of the company's annual GHG emissions. (T) CP implements strategic investments in our rail network, equipment and locomotive fleet through our annual capital program to improve the fuel efficiency of our operations. (A) Through this initiative, CP has refurbished a total of over 400 in-line locomotives through the end of 2022. Locomotives upgraded through this program have a direct and positive impact on CP's fuel efficiency and corresponding GHG and air pollutant emissions. (R) The fuel efficiency of locomotives that have gone through the modernization program is improved by an average of 2.7 percent. By the end of 2022, the more than 400 of CP's active line-haul locomotive fleet that have been upgraded through this program are estimated to result in an annual fuel savings of nearly 12 million litres, which corresponds to about 35,000 metric tons of GHG emissions saved each year. Supported by these investments, CP recorded a 2022 fuel efficiency of 0.955 U.S. gallons of locomotive fuel per 1,000 gross ton-miles (GTMs), an improvement of 43 percent relative to 1990. CP continues to mitigate climate-related risks by reducing locomotive fuel consumption to improve operational efficiency.

C3.5

In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

Identification of spending/revenue that is aligned with your organization's climate transition

Yes, we identify alignment with a sustainable finance taxonomy

Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy

At both the company and activity level

C3.5A

Quantify the percentage share of your spending/revenue that is aligned with your organization's climate transition.

Financial Metric

CAPEX

Type of alignment being reported for this financial metric

Taxonomy under which information is being reported

Objective under which alignment is being reported

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)

12,456,896

Percentage share of selected financial metric aligned in the reporting year (%)

1

Percentage share of selected financial metric planned to align in 2025 (%)

1

Percentage share of selected financial metric planned to align in 2030 (%)

1

Describe the methodology used to identify spending/revenue that is aligned

CP's capital expenses aligned with our Climate Strategy include expenditures for projects, initiatives and technologies that support a pathway to a lower carbon future. Specifically, CP included the proportion of our total capital expenditures associated with directly reducing CP's operational and value chain GHG footprint. This includes our investments in the Hydrogen Locomotive Program, the on-site solar farm at our Calgary headquarters, the HEP grain car initiative and Locomotive upgrades. These technologies and initiatives support CP's efforts to transition or operations to align with a 1.5°C future. As our programs and initiatives continue to evolve, including after we adopt a 1.5°C aligned target, the proportion of our capital expenditure aligned with a 1.5°C world is anticipated to change.

C3.5B

Quantify the percentage share of your spending/revenue that was associated with eligible and aligned activities under the sustainable finance taxonomy in the reporting year.

C3.5C

Provide any additional contextual and/or verification/assurance information relevant to your organization's taxonomy alignment.

C4. Targets and performance

C4.1

Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1B

Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Is this a science-based target?
Yes, and this target has been approved by the Science Based Targets initiative

Target ambition
Well-below 2°C aligned

Year target was set
2021

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2
Scope 3

Scope 2 accounting method
Location-based

Scope 3 category(ies)
Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Intensity metric
Other, please specify
grams CO_2e per revenue ton-mile (RTM)

Base year
2019

Intensity figure in base year for Scope 1 (metric tons CO_2e per unit of activity)
19.52

Intensity figure in base year for Scope 2 (metric tons CO_2e per unit of activity)
0

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO_2e per unit of activity)
5.65

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO_2e per unit of activity)

Intensity figure in base year for Scope 3 (metric tons CO_2e per unit of activity)

5.65

Intensity figure in base year for all selected Scopes (metric tons CO_2e per unit of activity)

25.17

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

96

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

0

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

95

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this Scope 3 intensity figure

50

% of total base year emissions in all selected Scopes covered by this intensity figure

79

Target year

2030

Targeted reduction from base year (%)

38.3

Intensity figure in target year for all selected Scopes (metric tons CO_2e per unit of activity) [auto-calculated]

15.52989

% change anticipated in absolute Scope 1+2 emissions

-26

% change anticipated in absolute Scope 3 emissions

-26

Intensity figure in reporting year for Scope 1 (metric tons CO_2e per unit of activity)

19.5

Intensity figure in reporting year for Scope 2 (metric tons CO_2e per unit of activity)

0

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO_2e per unit of activity)

5.39

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO_2e per unit of activity)

Intensity figure in reporting year for Scope 3 (metric tons CO_2e per unit of activity)

5.39

Intensity figure in reporting year for all selected Scopes (metric tons CO_2e per unit of activity)

24.89

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]

2.9045311724

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

This intensity-based target commits CP to reduce locomotive well-to-wheel (WTW) GHG emissions per revenue ton-miles (RTMs) by 38.3 percent by 2030, from a 2019 base year. Well-to-wheel emissions included in the target are Scope 1 emissions from locomotive fuel (which have accounted for over 95 percent of our total Scope 1 and 2 emissions) and Scope 3, Category 3 emissions from locomotive fuel, which covers our largest source of Scope 3 emissions. The use of RTMs is an important measure of CP's freight transportation business activity and is consistent with industry practice, aligning with the SBTi Sectorial Decarbonization Approach (SDA) target-setting approach. This target was calculated using the SBTi's SDA Tool for the transport sector.

Plan for achieving target, and progress made to the end of the reporting year

Published in 2021, CP's Climate Strategy charts the Company's path to reduce GHG emissions, adapt our operations to the physical risks of climate change and integrate climate factors across the business. In pursuing our SBTi-validated locomotive target, as well as our non-locomotive target, CP seeks to embrace creative thinking and collaborative problem solving to lower GHG emissions. CP is evaluating a wide variety of potential levers for GHG emissions reductions, including both commercially ready and emerging solutions. Specifically, our plan to achieve this target includes a continued focus on fuel efficiency and investigating the use of alternative fuels.

Examples of these efficiency improvements include our $600M multi-year investment to upgrade our grain hopper cars to higher-capacity cars and our locomotive upgrades, which has upgraded over 400 locomotives by the end of 2022. These programs have helped CP to achieve the progress that has been made thus far and will help to drive further reductions going forward.

List the emissions reduction initiatives which contributed most to achieving this target

C4.2

Did you have any other climate-related targets that were active in the reporting year?

No other climate-related targets

C4.3

Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3A

Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO_2e savings.

	Number of initiatives	Total estimated annual CO_2e savings in metric tonnes CO_2e (only for rows marked *)
Under investigation	6	295,657
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	2	2,906
Not to be implemented	0	0

C4.3B

Provide details on the initiatives implemented in the reporting year in the table below.

INITIATIVE CATEGORY & INITIATIVE TYPE

Low-carbon energy consumption

Other, please specify

Hydrogen Locomotive Program

Estimated annual CO_2e savings (metric tonnes CO_2e)

21

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

32,027,500

Payback period

No payback

Estimated lifetime of the initiative

21-30 years

Comment

CP is designing and building three hydrogen-powered locomotives, including North America's first line-haul hydrogen-powered locomotive using fuel cells and batteries to power the locomotive's electric traction motors. To support hydrogen locomotive operations, the project will include installation of hydrogen production and fueling facilities at CP railyards in Calgary and Edmonton. This program is an early stage research and development project with high initial capital costs. We expect emissions and financial savings to increase as the project and hydrogen technology continue to evolve. The payback period is highly contingent on capital costs, the future price differential of diesel to H_2, and carbon pricing policies. However, the costs are likely to decrease in the future as the technology advances to commercialization.

INITIATIVE CATEGORY & INITIATIVE TYPE

Low-carbon energy generation

Solar PV

Estimated annual CO_2e savings (metric tonnes CO_2e)

2,885

Scope(s)

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

250,649

Investment required (unit currency – as specified in C0.4)

9,303,000

Payback period

11-15 years

Estimated lifetime of the initiative

21-30 years

Comment

The installation of Ogden solar project has been completed. The completed installation spans approximately five hectares and provides covered parking for up to 500 employee vehicles and a solar garden. It also provides free covered parking for employees and designated electric vehicle charging stations. Four electric car-charging stations were also added to provide employees with access to electric vehicle charging at work. The project will also assist in reducing CP's Scope 2 emissions, a category specific to indirect emissions related to electricity usage.

The benefits from Ogden Solar project correspond to 4,937 MWH for 2022. When translated to emissions savings, the project saved approximately 2,885 metric tons of GHG emissions relative to what would have resulted from electricity used from the Alberta grid.

C4.3C

What methods do you use to drive investment in emissions reduction activities?

Method

Financial optimization calculations

Comment

In order to position execute the Climate Strategy, we are implementing new approaches to deploy capital, operating budgets and people in the most efficient and effective ways possible. CP currently expends significant amounts of capital to maintain and upgrade our locomotive fleet and network, to improve overall efficiency and ensure system reliability. We are increasingly utilizing new data management systems, technologies and fuels to mitigate GHG emissions in our operations.

C4.5

Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5A

Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Rail

Other, please specify

Intermodal Freight Rail Transport

Description of product(s) or service(s)

Shipping goods and materials by railway currently represents the most fuel-efficient method of on-land freight transportation over long distances. A single-unit train is estimated to keep more than 300 trucks off public roads, and transporting freight by rail is estimated to be roughly four times more fuel efficient than shipping by truck and produce about 75 percent less GHG emissions, which helps our customers further reduce GHG emissions. Specifically, CP's intermodal services move goods from a broad spectrum of industries, including wholesale, retail, food and various other commodities. Our intermodal traffic consists largely of retail goods in overseas containers that can be transported by train, ship and truck and in domestic containers that can be moved by train and truck.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Other, please specify

CP Internal Methodology

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Use stage

Functional unit used

1,000,000 revenue-ton-mile

Reference product/service or baseline scenario used

Intermodal transport via trucking

Life cycle stage(s) covered for the reference product/service or baseline scenario

Use stage

Estimated avoided emissions (metric tons CO_2e per functional unit) compared to reference product/service or baseline scenario

59

Explain your calculation of avoided emissions, including any assumptions

This calculation compares the GHG emissions per 1,000,000 revenue-ton-mile (RTM) associated with the movement of intermodal goods via trucks versus CP trains. Between 2021 and 2022, CP increased intermodal services by nearly 3.5 billion RTM, corresponding to an emissions savings of over 200,000 metric tons CO_2e relative to the trucking alternative.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

26

C5. Emissions methodology

C5.1

Is this your first year of reporting emissions data to CDP?

No

C5.1A

Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Has there been a structural change?

No

C5.1B

Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

Change(s) in methodology, boundary, and/or reporting year definition?

No

C5.2

Provide your base year and base year emissions.

SCOPE 1

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
3,136,416

Comment

SCOPE 2 (LOCATION-BASED)

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
48,843

Comment

SCOPE 2 (MARKET-BASED)

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)

Comment
CP was not calculating Scope 2 emissions using the market-based approach in the 2019 base year.

SCOPE 3 CATEGORY 1: PURCHASED GOODS AND SERVICES

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
631,004

Comment

SCOPE 3 CATEGORY 2: CAPITAL GOODS

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
0

Comment
It is not currently possible for CP to separate the procurement data for purchased goods and services and capital goods. Emissions from purchased capital goods are included in Category 1 and therefore emissions reported in this category are zero (0).

SCOPE 3 CATEGORY 3: FUEL-AND-ENERGY-RELATED ACTIVITIES (NOT INCLUDED IN SCOPE 1 OR 2)

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
916,786

Comment

SCOPE 3 CATEGORY 4: UPSTREAM TRANSPORTATION AND DISTRIBUTION

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
141,540

Comment

SCOPE 3 CATEGORY 5: WASTE GENERATED IN OPERATIONS

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
5,272

Comment

SCOPE 3 CATEGORY 6: BUSINESS TRAVEL

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
21,039

Comment

SCOPE 3 CATEGORY 7: EMPLOYEE COMMUTING

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
18,132

Comment

SCOPE 3 CATEGORY 8: UPSTREAM LEASED ASSETS

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
0

Comment
Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 9: DOWNSTREAM TRANSPORTATION AND DISTRIBUTION

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
0

Comment
Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 10: PROCESSING OF SOLD PRODUCTS

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
0

Comment
Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 11: USE OF SOLD PRODUCTS

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
0

Comment
Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 12: END OF LIFE TREATMENT OF SOLD PRODUCTS

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
0

Comment
Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 13: DOWNSTREAM LEASED ASSETS

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
0

Comment
Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 14: FRANCHISES

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
0

Comment
Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 15: INVESTMENTS

Base year start
January 1, 2019

Base year end
December 31, 2019

Base year emissions (metric tons CO_2e)
0

Comment
CP controls equity shares in several companies, primarily shortline and terminal railroads. None of these companies own and operate locomotives. The majority of emissions related to these companies are anticipated to be from electricity usage in office spaces. Using publicly available information, we were unable to find records of energy consumption or GHG emissions information for any of the companies. Therefore, it is assumed that the emissions from these companies were small and not material. Scope 3 emissions from this source are estimated to be nearly zero percent of CP's total Scope 3 emissions and therefore are considered not relevant.

SCOPE 3: OTHER (UPSTREAM)

Base year start

Base year end

Base year emissions (metric tons CO_2e)

Comment

SCOPE 3: OTHER (DOWNSTREAM)

Base year start

Base year end

Base year emissions (metric tons CO_2e)

Comment

C5.3

Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

What were your organization's gross global Scope 1 emissions in metric tons CO_2e?

REPORTING YEAR

Gross global Scope 1 emissions (metric tons CO_2e)
3,008,855

Comment

C6.2

Describe your organization's approach to reporting Scope 2 emissions.

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment

C6.3

What were your organization's gross global Scope 2 emissions in metric tons CO_2e?

REPORTING YEAR

Scope 2, location-based
41,343

Scope 2, market-based (if applicable)
41,244

Comment

C6.4

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4A

Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

SOURCE OF EXCLUDED EMISSIONS

Purchased electricity in leased space

Scope(s) or Scope 3 category(ies)

Scope 2 (location-based)

Scope 2 (market-based)

Relevance of Scope 1 emissions from this source

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of Scope 3 emissions from this source

Date of completion of acquisition or merger

Estimated percentage of total Scope 1+2 emissions this excluded source represents

0

Estimated percentage of total Scope 3 emissions this excluded source represents

Explain why this source is excluded

Data are not available.

Explain how you estimated the percentage of emissions this excluded source represents

Emissions are anticipated to account for less than 1 percent of total Scope 2 emissions.

SOURCE OF EXCLUDED EMISSIONS

Halocarbon emissions from US operations

Scope(s) or Scope 3 category(ies)

Scope 1

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Relevance of market-based Scope 2 emissions from this source

Relevance of Scope 3 emissions from this source

Date of completion of acquisition or merger

Estimated percentage of total Scope 1+2 emissions this excluded source represents

0

Estimated percentage of total Scope 3 emissions this excluded source represents

Explain why this source is excluded

Data are not currently collected for the U.S. operations.

Explain how you estimated the percentage of emissions this excluded source represents

Emissions are anticipated to account for less than 0.001 percent of total Scope 1 emissions.

SOURCE OF EXCLUDED EMISSIONS

Propane consumption from US operations

Scope(s) or Scope 3 category(ies)

Scope 1

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Relevance of market-based Scope 2 emissions from this source

Relevance of Scope 3 emissions from this source

Date of completion of acquisition or merger

Estimated percentage of total Scope 1+2 emissions this excluded source represents

0

Estimated percentage of total Scope 3 emissions this excluded source represents

Explain why this source is excluded

Data is unreliable and therefore excluded.

Explain how you estimated the percentage of emissions this excluded source represents

Emissions are anticipated to reflect less than 0.1 percent of total Scope 1 emissions.

C6.5

Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

PURCHASED GOODS AND SERVICES

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tonnes CO_2e)
525,139

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Supplier spend data was provided by CP's Operations Accounts and Capital Accounts groups. Spend data was classified based on the specified cost element to determine amount of money spent by CP in the reporting year on each element. Each cost element was then mapped to a specific US EPA Environmentally-Extended Input-Output (EEIO) category, with a corresponding emission factor per unit of spend. Each cost element was then totalled and converted into GHG emissions using the corresponding EEIO category emission factor. EEIO emission factors were accessed through the EPA website (https://catalog.data.gov/dataset/useeio-v1-1-matrices). Spend data associated with cost elements covered elsewhere in the inventory (either Scope 1 & 2 or other Scope 3 category) were removed to avoid double counting. Other cost element categories were also removed that would not result in emissions based on feedback from internal CP's Accounts teams.

Emissions from purchased goods and services are the second largest source, of the Scope 3 inventory, accounting for 32 percent of total Scope 3 emissions. Therefore, these emissions are considered relevant.

CAPITAL GOODS

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tonnes CO_2e)
0

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
See explanation from Category 1: Purchased goods and services, since it was not possible for CP to separate procurement data for purchased goods and services and capital goods. Emissions from purchased capital goods are included in Category 1, and emissions reported in this category are zero (0).

FUEL-AND-ENERGY-RELATED ACTIVITIES (NOT INCLUDED IN SCOPE 1 OR 2)

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tonnes CO_2e)
842,918

Emissions calculation methodology
Average data method
Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain

The fuel and energy-related activities evaluated include: upstream emissions from the fuel CP uses during its operation, upstream emissions from fuel combusted for the generation of the electricity purchased by CP and transmission and distribution (T&D) losses from electricity consumed. The specific methodology for these activities is as follows:

1. Upstream emissions from the use of fuels used for stationary and mobile sources - This evaluated the emissions related to the well-to-tank GHG emissions for fuels that CP consumes for locomotive, fleet and stationary sources during its operations. CP tracks the amount of fuel by type across its locations. Emissions were estimated using GHGenius 5.02a upstream emissions factors.

2. Upstream emissions from fuel combusted for the generation of electricity that CP purchases - These emissions are estimated based on electricity consumed by geographic location. Emission factors for well-to-tank emissions per kWh electricity consumed from fuel used were sourced from the DEFRA emission factor database. These were applied to the total electricity consumed for each location in CP's business.

3. Emissions from T&D losses - T&D loss emissions rate are calculated using information in Canada's most recent NIR for Canada and eGrid grid loss percent and methodology for calculating the corresponding grid loss emissions rate from EPA documentation. This grid loss emissions rate is then multiplied by total electricity consumed in a corresponding location to determine emissions from grid loss.

Emissions from this category are the largest source of the Scope 3 inventory, accounting for 52 percent of total Scope 3 emissions. Therefore, these emissions are considered relevant.

UPSTREAM TRANSPORTATION AND DISTRIBUTION

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tonnes CO_2e)

214,048

Emissions calculation methodology

Spend-based method

Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

4

Please explain

Upstream transportation and distribution emissions include those related to the transport of purchased materials, truck transport of intermodal containers, postage and couriers and haulage payments to other railroads to move goods for CP.

Emissions from the transport of purchased materials for truck loads and less than truck loads were calculated using each order's weight and transport distance with ton-mileage emission factors sourced from the EPA for medium- and heavy-duty trucks.

For all other upstream Transportation and Distribution emissions not covered by direct data, an Economic Input Output (EIO) calculator was used to estimate emissions from purchased transportation services. The data was sorted into type of spend based on CP's cost elements and descriptors, as well as emission factors from the US EPA Environment Environmentally-Extended Input-Output (EEIO) models. EEIO categories by spend were totaled and converted into GHG emissions using corresponding emission factors.

Emissions from upstream transportation account for 13 percent of CP's scope 3 emissions and are therefore relevant.

WASTE GENERATED IN OPERATIONS

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tonnes CO_2e)

4,772

Emissions calculation methodology

Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

CP receives data from waste haulers regarding amount and type of waste generated as well as waste destination. Total waste from each waste supplier is classified by corresponding waste type and destination and then converted to GHG emissions using factors from the most recent version of the EPA's GHG Emission Factors Hub document. In instances where material types did not match one of the emission factor categories, assumptions were made to best fit the emission factor classifications. Additionally, certain material types do not have emissions or emission factors associated with certain waste destinations (e.g., recycling). In these instances, a conservative assumption was made to use a placeholder value of 0.02 MT CO_2/short ton material.

CP's primary waste source by mass/volume is rail ties. The vast majority of CP's disposed railroad ties are sent to energy recovery facilities. Combustion emissions from these disposed railroad ties are not accounted for in this category per the GHG protocol Scope 3 calculation guidance, which states: "Companies should account for emissions from preparing and transporting waste that will be combusted in a waste-to-energy facility in category 5, but should not account for emissions from the waste-to-energy combustion process itself." In addition, CP transports the ties to these locations using their own cars and locomotives, so emissions from transport would be included in Scope 1.

This estimation includes emissions from waste that is landfilled, incinerated, recycled, or composted, as well as transportation-related emissions for other waste destinations. GHG emissions from waste generated in CP's operations are not material and represent less than one percent of total Scope 3 emissions. These emissions are considered not relevant.

BUSINESS TRAVEL

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tonnes CO_2e)

19,484

Emissions calculation methodology

Spend-based method

Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

45

Please explain

CP collects data from employee business travel by air through our travel provider. This system tracks flights by distance travelled, and therefore the distance-based method was used to estimate emissions. Flights were categorized by distance, including short-haul (under 300 miles), medium (between 300 to 2,300 miles) and long haul (greater than 2,300 miles). Passenger emission factors by flight distance from the US EPA Emission Factors for Greenhouse Gas Inventories database were used to calculate GHG emissions. CP collects data on employee car rentals from our rental car providers. These providers track the miles travelled and gallons used for vehicles. Fuel emission factors from the US EPA Emission Factors for Greenhouse Gas Inventories database were used to calculate GHG emissions. CP also collects data on hotel stays through our travel providers. The system tracks the employee night stays by country. Emission factors for hotel stays from DEFRA were used to calculate GHG emissions.

A few other categories of business travel emissions are calculated based on spend. CP tracks the amount spent on personal mileage reimbursement for employees using their own vehicles for business travel. The number of miles reimbursed were calculated using the Canada government rate for mileage reimbursement. Using the average fuel economy of a Canadian personal vehicle, CP calculated fuel usage and used fuel emission factors from the US EPA Emission Factors for Greenhouse Gas Inventories database to calculate GHG Emissions. CP also tracks the amount of spend for moving employees related to deadheading. This information was used with an EEIO model to calculate emissions for the associated passenger ground transport.

GHG emissions associated with business travel represent over 1.2 percent of total scope 3 emissions and are considered relevant.

EMPLOYEE COMMUTING

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tonnes CO_2e)
20,286

Emissions calculation methodology
Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Employee commuting emissions were estimated using CP provided data of total number of employees by location and the average mode breakdown, commuting time and distance statistics from census data in Canada and the US.

Based on the most recent census data, an average miles by type of transportation per day (passenger car, public transit, carpooling and active transport) was estimated using average commute distance and time by county in Canada and the US. This information was converted into GHG emissions using factors from the most recent version of the EPA's GHG Emission Factors Hub document. GHG emissions associated with employee commuting represent about 1.2 percent of total scope 3 emissions and are considered relevant.

UPSTREAM LEASED ASSETS

Evaluation status
Not relevant, explanation provided

Please explain
CP does not operate any upstream leased assets. Therefore GHG emissions from this source are zero (0). Emissions related to CP assets are included in the Scope 1 and 2 GHG emissions.

DOWNSTREAM TRANSPORTATION AND DISTRIBUTION

Evaluation status
Not relevant, explanation provided

Please explain
CP is a railway freight service provider and does not sell products. Category 9 is limited to emissions from the transportation of sold products by equipment and facilities not owned or controlled by CP. Therefore, downstream transportation and distribution are not relevant to CP. GHG emissions from this source are reported as zero (0). Any additional services purchased by CP to transport goods are included in Category 4: upstream transportation and distribution.

PROCESSING OF SOLD PRODUCTS

Evaluation status
Not relevant, explanation provided

Please explain
CP is a railway freight service provider and does not sell any products. Therefore, use of sold products is not relevant.

USE OF SOLD PRODUCTS

Evaluation status
Not relevant, explanation provided

Please explain
CP is a railway freight service provider and does not sell any products. Therefore, end of life treatment of sold products is not relevant and GHG emissions from this source are zero (0).

END OF LIFE TREATMENT OF SOLD PRODUCTS

Evaluation status
Not relevant, explanation provided

Please explain
CP is a railway freight service provider and does not sell any products. Therefore, end of life treatment of sold products is not relevant and GHG emissions from this source are zero (0).

DOWNSTREAM LEASED ASSETS

Evaluation status
Not relevant, explanation provided

Please explain
CP does not have any downstream leased assets; therefore, GHG emissions from this source are zero (0). CP directly manages assets which are included in reported Scope 1 and 2 GHG emissions.

FRANCHISES

Evaluation status
Not relevant, explanation provided

Please explain
CP does not own or operate any franchises; therefore, GHG emissions from this source are zero (0).

INVESTMENTS

Evaluation status
Not relevant, calculated

Emissions in reporting year (metric tonnes CO_2e)
0

Emissions calculation methodology
Other, please specify

Using publicly available information, we were unable to find records of energy consumption or GHG emissions information for any of the investee companies.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
In 2022, CP controlled equity shares in several companies, primarily shortline and terminal railroads. None of these companies own and operate locomotives. The majority of emissions related to these companies are anticipated to be from electricity usage in office spaces. Using publicly available information, we were unable to find records of energy consumption or GHG emissions information for any of the companies. Therefore, it is assumed that the emissions from these companies were small and not material.

Based on the information related to these investee companies and the likely source of emissions, Scope 3 emissions from this source are estimated to be zero and not relevant to this emissions category.

OTHER (UPSTREAM)

Evaluation status
Not relevant, explanation provided

Please explain
CP does not have other (upstream) emissions which have not been accounted for in this inventory.

OTHER (DOWNSTREAM)

Evaluation status
Not relevant, explanation provided

Please explain
CP does not have other (downstream) emissions which have not been accounted for in this inventory.

C6.7

Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO_2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
0.0003461

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO_2e)
3,050,198

Metric denominator
unit total revenue

Metric denominator: Unit total
8,814,000,000

Scope 2 figure used
Location-based

% change from previous year
8

Direction of change
Decreased

Reason(s) for change
Change in renewable energy consumption
Other emissions reduction activities
Change in revenue

Please explain
Our gross Scope 1 and Scope 2 emissions intensity decreased between 2021 and 2022 for several reasons including (but not limited to) the increased production and consumption of renewable electricity from the on-site solar farm at our Calgary headquarters, the benefits of emissions reduction initiatives, fluctuations in CP's mix of business, as well as an overall increase in our revenue.

C-TS6.15

What are your primary intensity (activity-based) metrics that are appropriate to your emissions from transport activities in Scope 1, 2, and 3?

RAIL

Scopes used for calculation of intensities
Report just Scope 1

Intensity figure
0.00001074

Metric numerator: emissions in metric tons CO_2e
2,890,569

Metric denominator: unit
t.mile

Metric denominator: unit total
269,134,000,000

% change from previous year
2

Please explain any exclusions in your coverage of transport emissions in selected category, and reasons for change in emissions intensity.
This metric only includes locomotive fuel consumption and excludes all facility-related Scope 1 and Scope 2 emissions. This is the most appropriate indicator of emissions related to transportation activities, as locomotive fuel emissions accounted for about 95 percent of CP's total Scope 1 and Scope 2 GHG emissions in 2022.

ALL

Scopes used for calculation of intensities
Report just Scope 1

Intensity figure
0.00001074

Metric numerator: emissions in metric tons CO_2e
2,890,569

Metric denominator: unit
t.mile

Metric denominator: unit total
269,134,000,000

% change from previous year
2

Please explain any exclusions in your coverage of transport emissions in selected category, and reasons for change in emissions intensity.
CP solely offers rail-based transportation services; therefore, the presented intensity figure and response to this question are consistent with the prior response related specifically to rail transportation services. This metric only includes locomotive fuel consumption and excludes all facility-related Scope 1 and Scope 2 emissions. As CP's locomotive fuel emissions accounted for about 95 percent of the Company's total Scope 1 and Scope 2 GHG emissions in 2022, this is the most appropriate indicator of emissions related to rail transport activities.

C7. Emissions breakdowns

C7.1

Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1A

Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO_2e)	GWP Reference
CO_2	2,734,789	IPCC Fifth Assessment Report (AR5 – 100 year)
N_2O	267,292	IPCC Fifth Assessment Report (AR5 – 100 year)
CH_4	4,255	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	2,520	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO_2e)
Canada	2,262,065
United States of America	746,791

C7.3

Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By activity

C7.3C

Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO_2e)
Freight Rail Service - locomotive fuel	2,890,569
On-Road Vehicle Fleet and Work Equipment	47,126
Off-Road Equipment	36,293
Heating Oil	815
Propane	5,799
Natural Gas (Building Heat)	25,734
Halocarbon Releases	2,520

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO_2e.

	Gross Scope 1 emissions, metric tons CO_2e	Comment
Transport services activities	3,008,855	Includes emissions for all activities, including emissions related to locomotive fuel, which accounted for about 96 percent of 2022 Scope 1 emissions.

C7.5

Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region	Scope 2, location-based (metric tons CO_2e)	Scope 2, market-based (metric tons CO_2e)
Canada	25,710	23,608
United States of America	15,633	17,636

C7.6

Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By activity

C7.6C

Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO_2e)	Scope 2, market-based (metric tons CO_2e)
Freight rail services	41,343	41,244

C7.7

Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

No

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO_2e.

	Scope 2, location-based, metric tons CO_2e	Scope 2, market-based (if applicable), metric tons CO_2e	Comment
Transport services activities	41,343	41,244	The emissions associated with purchased electricity are attributable to facility use in rail yards, maintenance operations and office-related functions.

C7.9

How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9A

Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO_2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	702	Decreased	0.02	Total Scope 1 and 2 emissions were 3,050,198 MT CO_2e in 2022 and 2,991,189 MT CO_2e in 2021. In 2022, CP utilized 4,937 MWh of electricity from this facility (compared to 3,499 MWh consumed in 2021), resulting in a reduction of 2,885 MT CO_2e in GHG emissions in 2022. In 2021, this reduction was 2,183 MT CO_2e, meaning that a change in renewable energy consumption resulted in 702 MT CO_2e additional reductions (2,885 – 2,183). This corresponds to a 0.02 percent decrease from 2021 totals according to the following formula: 702 MT CO_2e / 2,991,189 MT CO_2e*100 = 0.02 percent decrease.

	Change in emissions (metric tons CO_2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Other emissions reduction activities	21	Decreased	0.001	Total Scope 1 and 2 emissions were 3,050,198 MT CO_2e in 2022 and 2,991,189 MT CO_2e in 2021. The decrease in emissions due to emissions reduction initiatives implemented during the year combine to a total of 21 MT CO_2e in 2022, a 0.1 percent decrease from 2021 totals according to the following formula: 2,906 MT CO_2e / 2,991,189 MT CO_2e*100 = 0.1 percent decrease. Emissions reduction initiatives that contributed to this decrease include CP's Hydrogen Locomotive Program.
Divestment	0	No change	0	CP did not have any divestments in 2022.
Acquisitions	0	No change	0	CP did not have any acquisitions finalized in 2022.
Mergers	0	No change	0	CP did not have any mergers in 2022.
Change in output	29,135	Decreased	1	CP's total RTM decreased by one percent from 2021 to 2022. A one percent decrease in RTMs has a proportional impact on CP's and energy consumption accounting for a 29,135 MT CO_2e decrease in total emissions from 2021 to 2021. This percent change in GHG emissions was calculated with the formula: 29,135 MT CO_2e / 2,991,189 MT CO_2e*100 = 1 percent decrease.
Change in methodology	0	No change	0	There were no changes in CP's methodology in 2022.
Change in boundary	0	No change	0	There were no changes in CP's boundary in 2022.
Change in physical operating conditions	0	No change	0	There were no changes to CP's physical operating conditions in 2022.

Unidentified	88,867	Increased	3	CP's total Scope 1 and 2 emissions were 3,050,198 MT CO_2e in 2022 and 2,991,189 MT CO_2e in 2021, a year-on-year increase of 59,009 MT. This change in GHG emissions is related to: 1. The solar project at our headquarters came online in 2021 and continued the full 2022 production year, resulting in an annual additional reduction of 702 MT CO_2e (see explanation above in "Change in renewable energy consumption"). 2. Emissions reduction initiatives led to a decrease in combined Scope 1 and Scope 2 emissions of 21 MT CO_2e (see explanation above in "Other emission reduction activities"). 3. CP's total RTM decreased by 1 percent from 2021 to 2022 corresponding to a reduction of 29,135 MT CO_2e due to change in output (see explanation above in "Change in output"). 4. Additional unidentified increases described here. Inclusive of the above and additional factors impacting CP's year-over-year change to emissions reflected in this table, there is an additional unidentified emissions increase of 88,867 MT CO_2e, or 3.1 percent compared to last year's total Scope 1 and 2 emissions. The unidentified increase in GHG emissions was determined using the following formula: 59,009 (total Scope 1 and 2 emissions increase between 2021 and 2022) + 702 (change in renewable energy) + 21 (other emissions reduction activities) + 29,135 (change in output) = 88,867 unidentified to counter these reductions. The 3.1 percent figure has been derived from the following formula: 88,867 MT CO_2e / 2,991,189 MT CO_2e*100 = 3 percent increase.
Other	0	No change	0	There were no other changes in 2022.

C7.9B

Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

What percentage of your total operational spend in the reporting year was on energy?

More than 15% but less than or equal to 20%

C8.2

Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2A

Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	1,016	10,948,622	10,949,638
Consumption of purchased or acquired electricity		0	189,088	189,088
Consumption of self-generated non-fuel renewable energy		4,937		4,937
Total energy consumption		5,953	11,137,710	11,143,663

C8.2B

Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No
Generation of electricity, heat, steam, or cooling	No

C8.2C

State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

SUSTAINABLE BIOMASS

Heating value

HHV

Total fuel MWh consumed by the organization

0

Comment

CP does not have any emissions related to Sustainable biomass consumption; therefore, the total fuel MWh is zero (0).

OTHER BIOMASS

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

0

Comment

CP does not have any emissions related to other biomass consumption, therefore, the total fuel MWh is zero (0).

OTHER RENEWABLE FUELS (E.G. RENEWABLE HYDROGEN)

Heating value

HHV

Total fuel MWh consumed by the organization

1,016

Comment

Emissions related to biogasoline are calculated based on the amount of fuel (Litres of biogasoline) multiplied by a higher heating value (HHV) of 6.5 kWh/Litre to convert Litres of biogasoline to MWh energy.

HHV Source: HHV is calculated based on EPA table 1 - GHG emission factor hub 2022 – Ethanol.

COAL

Heating value

HHV

Total fuel MWh consumed by the organization

0

Comment
CP does not have any emissions related to coal consumption; therefore, the total fuel MWh is zero (0).

OIL

Heating value
HHV

Total fuel MWh consumed by the organization
10,780,362

Comment
Emissions related to diesel are calculated based on the amount of fuel (Litres of diesel) multiplied by a higher heating value (HHV) of 10.68 kWh/Litre to convert Litres of diesel to MWh energy.

HHV Source: HHV is calculated based on EPA table 1 - GHG emission factor hub 2022 – Distillate Fuel Oil No. 2.

Emissions related to gasoline are calculated based on the amount of fuel (Litres of fuel gas) multiplied by a higher heating value (HHV) of 9.68 kWh/Litre to convert Litres of fuel gas to MWh energy.

HHV Source: HHV is calculated based on EPA table 1 - GHG emission factor hub 2022 – Motor Gasoline.

Emissions related to Heating Oil are calculated based on the amount of fuel (Litres of Fuel oil) multiplied by a higher heating value (HHV) of 10.68 kWh/Litre to convert Litres of fuel oil to MWh energy.

HHV Source: HHV is calculated based on EPA table 1 - GHG emission factor hub 2022 – Distillate Fuel Oil No. 2.

GAS

Heating value
HHV

Total fuel MWh consumed by the organization
168,260

Comment
Emissions related to Natural Gas are calculated based on the amount of fuel (therms of natural gas), which is then converted to MWh.

Emissions related to Propane are calculated based on the amount of fuel (Litres of propane) multiplied by a high-heating value (HHV) of 7.05 kWh/Litre to convert Litres of propane to MWh energy.

HHV Source: HHV is calculated based on EPA table 1 - GHG emission factor hub 2022 – Propane.

OTHER NON-RENEWABLE FUELS (E.G. NON-RENEWABLE HYDROGEN)

Heating value
HHV

Total fuel MWh consumed by the organization
0

Comment
CP does not have any emissions related to other non-renewable fuel consumption; therefore, the total fuel MWh is zero (0).

TOTAL FUEL

Heating value
HHV

Total fuel MWh consumed by the organization
10,949,638

Comment
As noted above, the total fuel includes emissions related to renewable fuels (biogasoline), oil (diesel, gasoline, fuel oil No. 2/Heating Oil) and gas (natural gas, propane).

C8.2D

Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	4,937	4,937	4,937	4,937
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2E

Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Country/area of low-carbon energy consumption

Sourcing method

None (no active purchases of low-carbon electricity, heat, steam or cooling)

Energy carrier

Low-carbon technology type

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

Tracking instrument used

Country/area of origin (generation) of the low-carbon energy or energy attribute

Are you able to report the commissioning or re-powering year of the energy generation facility?

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

CP calculated Scope 2 market-based emissions for the second time in 2022. However, CP is not currently accounting for purchased zero or near-zero emission electricity as part of this reported value.

C-TS8.2F

Provide details on the average emission factor used for all transport movements per mode that directly source energy from the grid.

Category	Emission factor unit	Average emission factor: unit value	Comment
Rail	gCO_2/kWh	0	CP does not currently transport freight materials using electrical energy sourced from the grid.

C8.2G

Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
Canada

Consumption of electricity (MWh)
149,426

Consumption of self-generated electricity (MWh)
4,937

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
154,363

Country/area
United States of America

Consumption of purchased electricity (MWh)
39,661

Consumption of self-generated electricity (MWh)
0

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
39,661

C-TS8.5

Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

Activity
Rail

Metric figure
0.003632

Metric numerator
Liters of fuel

Metric denominator
t.mile

Metric numerator: Unit total
977,416,270

Metric denominator: Unit total
269,134,000,000

% change from last year
2

Please explain
This is the fuel efficiency value used by CP. The numerator represents diesel fuel consumed by locomotives and the denominator is gross ton-miles (GTMs). CP's overall fuel efficiency performance declined by two percent, as the litres of fuel consumed increased as GTMs decreased.

C9. Additional metrics

C9.1

Provide any additional climate-related metrics relevant to your business.

C-TO9.3/C-TS9.3

Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.

Activity

Rail

Metric

Fleet adoption

Technology

Other, please specify

Hydrogen locomotives

Metric figure

3

Metric unit

Other, please specify

Number of hydrogen locomotives

Explanation

Since December 2020, CP has been developing North America's first line-haul hydrogen-powered locomotive which uses fuel cells and batteries to power the locomotive's electric traction motors. This work will refine the process of converting diesel-electric powertrains to hydrogen-electric powertrains over a series of three distinct locomotive types, which collectively represent most locomotives currently in service across North America. In 2021, CP received funding from Emissions Reduction Alberta, which will build on the amount that CP already planned to invest in the development of this project. This funding enables CP to increase the number of hydrogen locomotive conversions from one to three and add hydrogen and fueling facilities.

In 2022, the Company advanced production on three hydrogen locomotive conversions and installing hydrogen production and fueling facilities. This industry-leading project is demonstrating the technical performance in real-world operations and generating critical industry knowledge and experience that is informing future commercialization and development activities. CP's Hydrogen Locomotive program passed a significant milestone in 2022 by completing the first successful movement and freight service testing on the initial hydrogen locomotive.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

Investment in low-carbon R&D

Yes

Comment

To execute our Climate Strategy, we are implementing new approaches to allocate limited capital, operating budgets and people in the most efficient way. This includes systematic ways to:

- Identify potential carbon reduction levers.
- Rigorously assess potential solutions with regards to carbon reduction potential, feasibility for the rail sector and cost to CP.
- Conduct bench-scale and pilot testing.
- Successfully deploy promising alternative fuels and propulsion methods.
- Engage and collaborate with others to progress this work.

In support of these objectives, since 2020, CP has been working to develop North America's first line-haul hydrogen-powered locomotive using fuel cells and batteries to power the locomotive's electric traction motors.

C-TO9.6A/C-TS9.6A

Provide details of your organization's investments in low-carbon R&D for transport-related activities over the last three years.

Activity
Rail

Technology area
Other, please specify
Drivetrain

Stage of development in the reporting year
Pilot demonstration

Average % of total R&D investment over the last 3 years
100

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years
100

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan
Since December 2020, CP has been developing North America's first line-haul hydrogen-powered locomotive using fuel cells and batteries to power the locomotive's electric traction motors. This work will refine the process of converting diesel-electric powertrains to hydrogen-electric powertrains over a series of three distinct locomotive models, which collectively represent most locomotive types in use throughout North America. In 2021, CP received $15M in funding from Emissions Reduction Alberta, which will build on the amount that CP already planned to invest in the development of this project. This funding enables CP to increase the number of hydrogen locomotive conversions from one to three and add hydrogen and fueling facilities.

The hydrogen production and fueling facilities will be located in Calgary and Edmonton, Alberta, Canada. Both fueling facilities will include an electrolysis plant to produce hydrogen from water. The Calgary facility will operate on renewable power from solar panels at CP's headquarters campus and produce zero greenhouse gas emissions.

CP's Hydrogen Locomotive Program will demonstrate and evaluate the technical performance of hydrogen-powered locomotives and supporting fueling infrastructure in real-world operations. The program will generate critical industry knowledge and experience that will inform commercialization and future development.

The project represents 100 percent of CP's R&D project spend specific to low-carbon initiatives over the last three reporting years.

C10. Verification

C10.1

Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1A

Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
CP_GHG Verification Report_2022.pdf

Page/ section reference
Verification findings are on page 16 and Appendix A and onward in the document. Auditor Assurance Opinion: The verification is an independent third-party assessment of CP's 2020 GHG Report and is conducted in compliance with the requirements of ISO Standard 14064 on greenhouse gases. Based on our auditor's (GHD) verification, the GHG inventory is reported in accordance with the verification criteria and free of material misstatements.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1B

Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

SCOPE 2 APPROACH

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

CP_GHG Verification Report_2022.pdf

Page/ section reference

Verification findings are on page 16 and Appendix A and onward in the document. Auditor Assurance Opinion: The verification is an independent third-party assessment of CP's 2020 GHG Report and is conducted in compliance with the requirements of ISO Standard 14064 on greenhouse gases. Based on GHD's verification, the GHG inventory is reported in accordance with the verification criteria and free of material misstatements.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

SCOPE 2 APPROACH

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

CP_GHG Verification Report_2022.pdf

Page/ section reference

Verification findings are on page 16 and Appendix A and onward in the document. Auditor Assurance Opinion: The verification is an independent third-party assessment of CP's 2020 GHG Report and is conducted in compliance with the requirements of ISO Standard 14064 on greenhouse gases. Based on GHD's verification, the GHG inventory is reported in accordance with the verification criteria and free of material misstatements.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1C

Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

SCOPE 3 CATEGORY

Scope 3: Purchased goods and services
Scope 3: Capital goods
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
Scope 3: Upstream transportation and distribution
Scope 3: Waste generated in operations
Scope 3: Business travel
Scope 3: Employee commuting

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

CP_GHG Verification Report_2022.pdf

Page/section reference

Verification findings are on page 16 and Appendix A and onward in the document. Auditor Assurance Opinion: The verification is an independent third-party assessment of CP's 2022 GHG Report and is conducted in compliance with the requirements of ISO Standard 14064 on greenhouse gases. Based on GHD's verification, the GHG inventory is reported in accordance with the verification criteria and free of material misstatements.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2A

Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Progress against emissions reduction target	ISO14064-3	Verification findings are on p. 16. Assurance Opinion: The verification is an independent third-party assessment of CP's 2022 GHG Report and is conducted in compliance with the requirements of ISO Standard 14064 on greenhouse gases. Based on GHD's verification, the GHG inventory is reported in accordance with the verification criteria and free of material misstatements.
C7. Emissions breakdown	Year on year change in emissions (Scope 1 and 2)	ISO14064-3	Verification findings are on p. 16. Assurance Opinion: The verification is an independent third-party assessment of CP's 2022 GHG Report and is conducted in compliance with the requirements of ISO Standard 14064 on greenhouse gases. Based on GHD's verification, the GHG inventory is reported in accordance with the verification criteria and free of material misstatements.

C11. Carbon pricing

C11.1

Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1A

Select the carbon pricing regulation(s) which impacts your operations.

BC carbon tax
Canada federal fuel charge

C11.1C

Complete the following table for each of the tax systems you are regulated by.

BC CARBON TAX

Period start date
January 1, 2022

Period end date
December 31, 2022

% of total Scope 1 emissions covered by tax
37.5

Total cost of tax paid
46,500,000

Comment
Various Canadian provinces and the federal government have implemented carbon pricing programs to incentivize consumers to reduce fossil fuel use and related GHG emissions. Under the British Columbia carbon tax, CP is required to remit carbon taxes to British Columbia based on fuel consumption within the province during 2022. Costs to comply with the carbon tax program increase the price of CP locomotive fuel and associated operating costs. Any increase in operating costs related to operations within the province is allocated to CP's customers based on CP's Tariff 9800. The purpose of this tariff is to transparently convert carbon emissions costs from the method by which they are charged to the railway ($ per ton of CO_2-equivalent emissions per litre of fuel consumed) into a format applicable to customer shipments ($ per loaded car mile, $ per unit shipped, etc.). Tariff 9800 is publicly available and applies to all shipments moving through British Columbia to recover the incremental expense associated with carbon taxes or levies. The surcharge amount $46.5M is calculated to recover this projected expense and appears as a separate line item on invoices for customer freight charges. If a new environmental tax is introduced or the carbon pricing rate adjusted, updated information will be added to the tariff.

CANADA FEDERAL FUEL CHARGE

Period start date
January 1, 2022

Period end date
December 31, 2022

% of total Scope 1 emissions covered by tax
44.3

Total cost of tax paid
55,500,000

Comment
Various Canadian provinces and the federal government have implemented carbon pricing programs to incentivize consumers to reduce fossil fuel use and related GHG emissions. Under the federal carbon tax, CP is required to remit carbon taxes to the federal government based on fuel consumption (except in provinces with an approved carbon pricing program ex. Quebec and British Columbia). Costs to comply with carbon tax programs effectively increase the price of locomotive fuel and associated operating costs to CP. Any increase in operating costs related to operations within this region is allocated to CP's customers based on CP's Tariff 9800. The purpose of this tariff is to transparently convert carbon emissions costs from the method by which they are charged to the railway ($ per ton of CO_2-equivalent emissions per litre of fuel consumed) into a format applicable to customer shipments ($ per loaded car mile, $ per unit shipped). Specifically, the surcharges in the tariff apply to all shipments moving through Canadian provinces that are subject to the federal carbon pricing program to recover the incremental expense associated with carbon taxes or levies. A greenhouse gas emissions surcharge is applied to every shipment moving through applicable provinces and appears as a separate line item on invoices for freight charges. If a new environmental tax is introduced, a surcharge to pass through the new tax in an equitable manner will be added to the tariff.

C11.1D

What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

CP actively engages in all carbon pricing programs that impact our operations. To support compliance with these programs, CP established a cross-functional team with participants from Treasury, Fuel Group, Commodity Taxation, Environmental Risk, Strategy and Legal. Subject matter experts regularly review program developments and implement appropriate compliance mechanisms to prepare CP for complying with the carbon pricing systems in which we participate.

Carbon pricing programs continue to evolve in Canada. During 2022, this team periodically reviewed carbon pricing program developments in Alberta, Québec, Manitoba, Saskatchewan and British Columbia, as well as at the federal level. In 2022, Canada's federal carbon tax was $50 per metric ton CO_2e, and is expected to rise by $15 per year until reaching $170 in 2030. CP's cross-functional team is responsible for all aspects of maintaining compliance, including fuel procurement, tracking, reporting, verification, sourcing carbon allowances (as needed), internal/external communications and meeting regulatory deadlines. For example, one output of this strategy is annually updating and communicating our Tariff 9800 to impacted customers.

As governments implement or adjust environmental taxes or levies, CP updates surcharge rates reflected in Tariff 9800. The tariff was updated in 2022 and will continue to be adjusted to accommodate for changes to fuel pricing and carbon pricing schemes. The timescale of implementation for this action is anticipated to be through at least 2030 based on the current timeframe communicated by Canada's federal government. Tariff 9800 establishes emissions surcharge rates at the province level to recoup carbon price costs related to fuels used in transporting customer goods. Tariff 9800 is designed to maintain an equitable, revenue-neutral system to clearly articulate and distribute carbon costs to our customers. The result of these actions to comply with carbon pricing systems and updating and communicating Tariff 9800 enables CP to maintain competitive shipping rates, which are key to our strategy for complying with regulatory carbon pricing systems.

C11.2

Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

Does your organization use an internal price on carbon?

Yes

C11.3A

Provide details of how your organization uses an internal price on carbon.

Type of internal carbon price
Shadow price

How the price is determined
Alignment with the price of a carbon tax

Objective(s) for implementing this internal carbon price
Identify and seize low-carbon opportunities
Navigate GHG regulations

Scope(s) covered
Scope 1
Scope 2

Pricing approach used – spatial variance
Uniform

Pricing approach used – temporal variance
Evolutionary

Indicate how you expect the price to change over time
As a fuel-intensive business, regulations that increase the cost of carbon emissions directly impact CP's operating costs. The price of CP's services could consequently increase and, if the costs of service become too high, could impact CP's competitive advantage over alternative modes of transport based on competitors' abilities to reduce fuel consumption and carbon emissions. In response to this, and to assess CP's risk exposure to carbon pricing programs, we have introduced the use of an internal carbon price as part of our capital assessment process. CP's internal carbon price matches Canada's federal carbon tax, which was $50 per metric ton CO_2e in 2022 and is expected to rise by $15 per year until reaching $170 in 2030.

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO_2e)
50

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO_2e)
50

Business decision-making processes this internal carbon price is applied to
Capital expenditure
Risk management
Opportunity management

Mandatory enforcement of this internal carbon price within these business decision-making processes

Yes, for some decision-making processes, please specify

Capital expenditure and opportunity management.

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan

In 2022, CP was exposed to carbon pricing in Canada. At both provincial and federal levels, Canadian governments have imposed carbon taxation systems and cap and trade market mechanisms in the jurisdictions where CP operates. While applicable to our Canadian operations, CP is not currently subject to carbon pricing in U.S. operations. There are currently no federal or state-level carbon pricing systems in the American jurisdictions where CP operates.

As a fuel-intensive business, increased carbon pricing regulation directly impacts CP's operating costs. The price of CP's services could consequently increase and, if the costs of service become too high, could impact CP's competitive advantage over alternative modes of transport based on competitors' abilities to reduce fuel consumption and carbon emissions.

In 2021 CP's capital assessment team introduced the use of an internal carbon price when evaluating capital projects to support investments in low carbon solutions and limit the potential exposure to carbon pricing risks. The price used by CP matches Canada's federal carbon tax, which was $50 per metric ton CO_2e in 2022 and is expected to rise by $15 per year until reaching $170 in 2030. CP has also developed an assessment process to prioritize emissions reduction projects by determining GHG emissions reduction potential and assigning a $ value per metric ton of CO_2e mitigated.

Our scenario analysis looked at long-term business risks and opportunities to inform strategic financial planning decisions. Through scenario analysis, CP modelled the effects of potential regulatory changes based on the three future pathways to understand the potential financial implications to CP's business from 2020 through 2050. Evaluated carbon pricing across these scenarios ranged from $30 to $239 per tonne.

Our scenario analysis process has guided the development of CP's Climate Strategy and the establishment of science-based targets, as well as helping to assess long-term climate-related risks and opportunities that could impact financial planning decisions. CP is working to integrate the climate-related risks and opportunities identified in the scenario analysis process into relevant business processes, including (but not limited to) enterprise risk management, capital expenditures and strategic planning.

C12. Engagement

C12.1

Do you engage with your value chain on climate-related issues?

Yes, our customers/clients
Yes, other partners in the value chain

C12.1B

Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement
Education/information sharing
Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number
100

% of customer - related Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement
CP provides the opportunity for 100 percent of our customers to engage with us directly on climate-related programs and information. The rationale for engaging with all customers on climate-related topics is to raise customer awareness of CP's climate commitments and the benefits of using freight rail services to reduce the overall impact of their supply chains. Through this engagement, CP aims to earn and retain new business related to increasing supply chain demand for low carbon services, a material opportunity for CP identified through our scenario analysis. We seek to engage with our entire customer base to maximize the impact of this initiative for both CP and our customers.

To realize this opportunity, CP's customer engagement practices and initiatives are focused on increasing customer awareness of CP's strong performance in reducing GHG emissions, ongoing climate initiatives, science-based emissions reductions targets and how these actions can specifically benefit customers to reduce the GHG emissions impact of their supply chains. Engagement activities include one-on-one meetings with customers, customer surveys, customer forums, company website resources and online shipment management tools such as CP's Customer Station. CP will often engage with customers to provide carbon emissions information related to customer-specific services performed by CP.

CP also provides our customers with additional resources and GHG planning tools, including CP's online rail transport Carbon Emissions Calculator. CP's Carbon Emissions Calculator is designed to provide current and prospective customers with the ability to calculate and compare an estimate of the GHG emissions related to transportation of freight by CP's rail services versus heavy haul trucking alternatives. This information assists potential and current customers in estimating the GHG emissions savings of shipping freight across user-selected origin and destination pairs for a wide variety of commodities commonly shipped by rail. Customers seeking a deeper understanding of CP's climate change practices and emissions data often connect with their CP customer account managers, who can provide further information and opportunities for collaboration. CP also responds directly to customer supply chain surveys, including the annual CDP climate change questionnaire.

Impact of engagement, including measures of success
As a key metric for our customer engagement practices, CP monitors the percentage of our freight revenue business that we engage with on climate change practices and GHG emissions as the measure of success for this program. While our objective is to engage with all customers on opportunities to reduce GHG emissions within their supply chains, CP's threshold for the success of this initiative is to engage with 30 percent of our business on climate-related

topics by 2025. CP began this practice in 2019 with an objective to linearly work towards this 30 percent goal by 2025 (e.g., 5 percent additional engagement each year), corresponding to 20 percent customer engagement in 2022.

In 2022, CP directly engaged with 24 existing customers and three potential customers (representing eight percent of our freight revenue business) to evaluate GHG emissions associated with rail services and respond to climate-related questions. Our level of engagement has increased from 4 percent in 2019 to 18 percent in 2022, a four-fold improvement. Our engagement practices have improved customer awareness of the GHG emissions associated with our rail services and how we can help to reduce emissions within their value chains. As we continue to grow and improve the success of our engagement practices, CP will work towards our 2025 goal of climate-related engagement with 30 percent of our business.

The success of our engagement is also evidenced by growing customer interest in the potential for freight rail services to reduce supply chain GHG emissions. Building on increasing interest from the Company's value chain, CP developed an online Carbon Emissions Calculator in 2022 to facilitate stakeholder engagement. This tool allows customers and other stakeholders to model carbon emissions and other ESG-related benefits of shipping goods by CP freight rail service. Users can review shipping options and generate customized estimates to inform discussions on low carbon rail services with CP's sales and marketing team. Following the tool's launch in September 2022, the Carbon Emissions Calculator has had over 1,000 distinct users, indicating a strong interest from stakeholders, including current and prospective customers.

C12.1D

Give details of your climate-related engagement strategy with other partners in the value chain.

In addition to our engagement with customers, CP engages with other partners in our value chain on climate-related issues, including downstream power plants and industrial companies, who utilize the waste ties generated in our operations to generate power, and our waste tie processor vendors. Based on our assessment of operational waste and Scope 3 emissions, we observed that waste ties are our largest waste source, generating nearly around 80 percent of our operational waste by mass in the reporting year.

CP generated over 650,000 waste rail cross ties as part of our annual network maintenance and track renewal program in 2022. Wherever possible, CP avoids disposal of waste ties at landfill facilities, preferring to direct these materials for beneficial reuse purposes. Out of a shared interest in sustainability and climate-related impacts, we work with several vendors across our network to process waste rail ties into a variety of fuel materials, including renewable solid fuel feedstocks for cogeneration facilities and innovative biomass-based liquid fuel products.

CP regularly engages with our network of waste tie processors and downstream cogeneration facilities and industrial plants to review practices and identify sustainable end-of-life solutions for waste ties, including emerging interest and innovation in the production of renewable fuels from waste tie materials. Through this network, over 95 percent of waste ties avoided being disposed of via landfill in 2022.

Starting in 2018, CP engaged Cielo Waste Solutions Corp. (Cielo) to evaluate the potential for processing waste rail ties into renewable liquid fuel products, including renewable naptha, kerosene (aviation jet fuel) and high-grade diesel. Cielo is currently developing a large testing facility near Edmonton in order to test the scrap tie feedstock and resulting emissions. If this testing proves successful, then Cielo would consider investing in a larger facility that uses this waste input.

CP is also exploring additional opportunities to partner with other value chain members to utilize scrap ties for more sustainable end-of-life solutions. This includes multiple calls with potential scrap tie recyclers in 2022.

In addition to these described stakeholders and examples, CP also engages with other partners in our value chain on climate-related topics, including local and indigenous communities and first responders, our own employees, local and indigenous communities, and first responders. For example, CP has invested $1M in funding to BC First Nations to support climate adaptation, specifically related to wildfires. Additionally, CP's engineering and government affairs teams set up regular cadence meetings with local leaders as waters began to rise along the Mississippi River to collaborate on flood mitigation strategies. CP teams make sure communities know what efforts CP takes and looks for opportunities to coordinate our responses to protect our operation and their community more effectively.

C12.2

Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

Yes, suppliers have to meet climate-related requirements, but they are not included in our supplier contracts

C12.2A

Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement

Other, please specify

Respond to ESG questionnaire

Description of this climate related requirement

As part our Sustainable Procurement roadmap, we are implementing processes for assessing and monitoring broader ESG risks in our supply chain. Attestation to our Supplier Code of Conduct is required in all new supplier agreements and requests for proposal. Through a supplier registration questionnaire, all suppliers are required to provide information on environmental practices including climate change topics, human rights practices, diversity policies, and business ethics to assess ESG risk exposure. We have piloted a supplier ESG questionnaire with select Critical Tier 1 suppliers to identify and evaluate ESG risks during supplier selection. We are assessing our sourcing practices to identify the category-level ESG risks to adapt our sourcing approach evaluation criteria to limit exposure and effectively manage category specific risks.

% suppliers by procurement spend that have to comply with this climate-related requirement

25.4

% suppliers by procurement spend in compliance with this climate-related requirement

24.6

Mechanisms for monitoring compliance with this climate-related requirement

Supplier scorecard or rating

Response to supplier non-compliance with this climate-related requirement

Retain and engage

C12.3

Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Yes, we fund organizations or individuals whose activities could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

CP_2020_Climate_Statement.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

To ensure broad alignment across the business, CP released the company's first public statement on climate change, which acknowledges the effects of rising global temperatures and lays out our commitment to ongoing efforts to mitigate these impacts.

The statement outlines the following key principles:

1) CP commits to support the goals of the Paris Agreement, which seek to limit global temperature rise to well below 2 degrees Celsius above pre-industrial levels.

2) CP aligns with recognized initiatives that bring governments, sectors and companies together, such as the Pan-Canadian Framework on Clean Growth and Climate Change plan and the resulting Greenhouse Gas Pollution Pricing Act (Canada), to the extent that they apply to CP's operations, as well as the Task Force on Climate-related Financial Disclosures.

3) CP supports "public policy aimed at reporting and reducing emissions and lowering the impact of the freight rail sector on the environment."

In 2021, CP developed a Climate Strategy to focus on the Company's climate actions on innovation, collaboration and thought leadership. A key component of the Climate Strategy is to drive internal alignment while engaging suppliers, customers, rail transportation peers and policymakers to help lead industry-wide change. This involves strategic engagements to support our Climate Strategy, including topics related to cap and trade, carbon taxes, fuel efficiency standards, renewable fuel standards and emissions reporting programs.

CP's Climate Commitments, Climate Strategy and overall approach to sustainability are reviewed with CP's Executive team and the Board's RSC. With oversight from the President and CEO, decisions on day-to-day implementation of sustainability priorities are guided by a cross-functional executive Sustainability Steering Committee, which consists of several senior CP leaders. The Sustainability Steering Committee regularly reports progress and advances recommendations on the Company's sustainability objectives, policies and management approach to the Risk and Sustainability Committee of the Board. New in 2022, CP established a Carbon Reduction Task Force (CRTF), composed of our industry-leading engineers and operations experts. Reporting to the executive Sustainability Steering Committee, the CRTF evaluates, recommends and implements climate action measures to reduce GHG emissions and drive performance in the direction of our science-based targets.

C12.3A

On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Canada's Federal Output-Based Pricing System

CP is regulated under multiple carbon taxation systems and cap and trade market mechanisms in the Canadian provinces in which we operate. Most provincial programs align with Canada's Greenhouse Gas Pollution Pricing Act. In 2022, Canada's federal carbon tax was $50 per metric ton CO_2e, and is expected to rise by $15 per year until it hits $170 in 2030.

Category of policy, law, or regulation that may impact the climate

Carbon pricing, taxes, and subsidies

Focus area of policy, law, or regulation that may impact the climate

Carbon taxes

Policy, law, or regulation geographic coverage

National

Country/area/region the policy, law, or regulation applies to

Canada

Your organization's position on the policy, law, or regulation

Support with minor exceptions

Description of engagement with policy makers

CP has a history of participating in policy and regulatory processes with the aim of contributing to the development of sound public policies and regulations that are relevant to our business. Given the Company's role as both a fuel transporter and a major fuel purchaser, CP has established a cross-functional team with participants from Treasury, Fuel Group, Commodity Taxation, Environmental Risk, Strategy and Legal, to review regulatory developments and implement appropriate compliance mechanisms.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Within Canada, a variety of carbon pricing programs have been created to incentivize consumers and businesses to reduce GHG emissions. These programs have primarily taken the form of carbon taxes, which price GHG emissions. In April 2019, a federal carbon pricing program applied a carbon price to the provinces without pre-existing programs. As a result, our operations are regulated through a patchwork of provincial and federal programs, highlighting the challenge to our business associated with the current approach to setting a price on carbon. In addition to the administrative challenges of navigating multiple pricing jurisdictions, carbon pricing results in higher rail service costs. To simplify this, we have been working with the Railway Association of Canada (RAC) to promote Canadian regulatory changes that support the Canadian economy while also taking action on climate change. The rail sector's preference, as communicated to the Government of Canada, is for carbon tax burdens to be offset by allowing a deduction for capital expenditures that reduce GHG emissions and to direct a portion of revenues collected from climate change initiatives to be reinvested into rail programs that incentivize low-emissions transportation solutions, thereby helping Canada reduce its overall GHG emissions. These recommendations support the government's ambitions to fulfill the objectives of the Pan-Canadian Framework on Clean Growth and Climate Change and the Transportation 2030 strategic plan. Details on the Canadian rail sector's recommendations to the Government of Canada can be found at: https://www.railcan.ca/wp-content/uploads/2019/08/August_2_-_2020_Prebudget_Submission_-_RAC_FINAL.pdf.

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Specify the policy, law, or regulation on which your organization is engaging with policy makers
Canada Clean Fuel Standard

Category of policy, law, or regulation that may impact the climate
Low-carbon products and services

Focus area of policy, law, or regulation that may impact the climate
Alternative fuels

Policy, law, or regulation geographic coverage
National

Country/area/region the policy, law, or regulation applies to
Canada

Your organization's position on the policy, law, or regulation
Support with minor exceptions

Description of engagement with policy makers
As a member of RAC, CP engaged with other railroad members in reviewing Canada's low-carbon fuel standards regulations and provided comments to regulators on behalf of the rail sector.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
CP and the RAC engaged with the Government of Canada as they developed a regulatory framework for a low-carbon fuel standard in Canada. The rail sector specifically requested that regulations improve transparency for fuel users related to renewable fuel content mixed with conventional liquid fuels supplied into the marketplace by primary fuel suppliers as they comply with the new legislation. Lack of clarity in fuel qualities received by fuel users like the rail sector can lead to equipment performance concerns and warranty issues and impact the operating range of locomotives.

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.3B

Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

TRADE ASSOCIATION

Other, please specify
Railway Association of Canada

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
The RAC advocates on behalf of its members, representing close to 60 freight and passenger railway companies, and supports the Government of Canada's commitments under the Pan-Canadian Framework on Clean Growth and Climate Change and its vision for green and innovative transportation as outlined in the Transportation 2030 strategic plan. In 2020, the RAC published an environmental brief summarizing the climate benefits associated with a modal shift from highway truck to rail and urging governments to incentivize the optimal modal

shift through programs like carbon pricing. The report, Helping Canada Stay on Track to Fight Climate Change, can be found here: https://www.railcan.ca/resources/

CP's Chief Legal Officer and Corporate Secretary and AVP – Government Affairs Canada are directors on the board of RAC. The rail industry leaders serving on the RAC's board of directors are responsible for the Association's strategic leadership and, in this capacity, engage in discussions and advocacy with industry representatives, policymakers and other stakeholders on public policy positions. https://www.railcan.ca/who-we-are/rac-board-of-directors.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

TRADE ASSOCIATION

Other, please specify

Association of American Railroads

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The AAR advocates on behalf of the U.S. freight rail industry, leading policy development, research, standard-setting and technology organization that focuses on rail sector safety and productivity. In March 2021, the AAR released a new report on Freight Railroads & Climate Change outlining the intrinsic benefits that rail provides in reducing greenhouse gas emissions. The report establishes several policy positions including, 1) instituting market solutions to reduce climate change, 2) creating a user-pay system for freight transported on public highways, 3) emissions surcharge programs, 4) partnerships for research funding, 5) streamlining railroad regulation to support decarbonization, 6) support for carbon capture, utilization and storage and 7) encouraging investment in decarbonization practices. The report, Freight Railroads and Climate Change, can be found here: https://www.aar.org/wp-content/uploads/2021/02/AAR-Climate-Change-Report.pdf

CP is represented at AAR by the Assistant Vice President of US Government Affairs and the Senior Director of US Government Affairs who are the representatives for Alabama, Arkansas, Illinois, Iowa, Kansas, Louisiana, Maine, Michigan, Minnesota, Mississippi, Missouri, New York, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, Texas, Vermont and Wisconsin. In this capacity, we engage in discussions with industry representatives, policymakers and other stakeholders on public policy positions.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

TRADE ASSOCIATION

Other, please specify

Business Council of Canada

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The Business Council of Canada (BCC) is a non-profit, non-partisan corporate advocacy organization representing more than 150 major businesses that have played an influential role in public policy since the 1970s. The BCC's position is to strengthen the economy with a focus on resource management and the environment. In April 2021, the BCC released a report on Clean Growth 3.0 outlining its current views on climate action. The BCC holds that the ambition to reach net zero emissions must also support sustainable economic growth. The report, Clean Growth 3.0, makes numerous references to the achievement of the goals of the Paris Agreement and can be found here: https://thebusinesscouncil.ca/report/clean-growth-3-0/

CP's President and Chief Executive Officer is a member of the BCC, and in that capacity, we engage in discussions on public policy positions. CP is also engaged in BCC's work around climate-related legislation in Canada, including the Canadian Securities Administrators proposed National Instrument 51-107 - Disclosure of Climate-related Matters. The BCC's members are at the forefront of taking action to reduce GHG emissions and assess exposure to climate-related risks and have provided feedback and comments with regards to these emerging climate-related regulations.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

TRADE ASSOCIATION

Other, please specify

GoRail

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

GoRail is a non-profit advocacy organization that works with community leaders across the U.S. to share knowledge about the public benefits of freight rail investments and to mobilize them in support of a better and more sustainable rail system. GoRail advocates for communications with federal lawmakers directly by participating in open public dialogue (such as the Railroad Day on Capitol Hill) and by outlining the policy priorities for freight railways, targeted at preserving rail's private investments. GoRail's website discusses the environmental impact and benefit of railroads, highlighting investments in locomotive fuel efficiency, new technologies and other innovations that support reduced environmental impact from the freight rail sector.

CP's Assistant Vice President of US Government Affairs is on the GoRail Board of Directors, and in that capacity, we engage in discussions on public policy positions.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

TRADE ASSOCIATION

Other, please specify

Regional Railroad Associations

Is your position on climate change consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

CP is a member of several regional railroad associations in the U.S., such as the Michigan Railroads Association, Minnesota Regional Railroads Association, Illinois Railroad Association, Railroads of New York and Wisconsin Railroad Association. These trade associations review all introduced legislation in the House and Senate, share proposed legislation affecting the rail industry with its members and coordinate the formulation and communications of final industry positions regarding legislation to the legislature. These associations are actively involved with several state departments, including the departments of Transportation, Environmental Quality and Economic Development Corporation, regarding environmental, regulatory and economic development issues. Regional railroad associations advocate for policy priorities that favor the development of the freight rail industry in the U.S. and preserve its unique ability to reduce highway gridlock, fuel consumption, GHG emissions and pollution.

CP's Assistant Vice President of US Government Affairs or Senior Director of US Government Affairs are participants on the Executive Committees of the Arkansas Railroad Association, Illinois Railroad Association, Kansas Railroad Association, Louisiana Railroad Association, Michigan Railroads Association, Mississippi Railroad Association, Railroads of New York, Minnesota Regional Railroads Association, Oklahoma Railroad Association, and the Texas Railroad Association. In this capacity, we engage in discussions with industry representatives, policymakers and other stakeholders on public policy positions.

http://michiganrailroadsassociation.com/who-we-serve,
http://illinoisrailroadassociation.com/executive-committee,
http://www.railroadsofny.com,
https://www.mnrailroads.com/

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.3C

Provide details of the funding you provided to other organizations or individuals in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

TYPE OF ORGANIZATION OR INDIVIDUAL

Non-Governmental Organization (NGO) or charitable organization

State the organization to which you provided funding

Transition Accelerator

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

This funding was used to support the development of a study facilitated by the Transition Accelerator. The study is titled "Towards a Fuel Hydrogen Economy in the Calgary Region: A Feasibility Study." This study investigated and reported on current energy use in the Calgary region, as well as specific sectors and areas of Hydrogen demand, including CP railway operations within the region. This study is the first phase in an overarching process to launch a hydrogen hub in the region, which will result in the pilot, demonstration and commercialization of hydrogen projects. This study could be used to advocate for the development of more favourable economic and regulatory conditions for the development of hydrogen resources.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

TYPE OF ORGANIZATION OR INDIVIDUAL

Non-Governmental Organization (NGO) or charitable organization

State the organization to which you provided funding

Canadian Business for Social Responsibility (CBSR)

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)

10,500

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

CBSR is a pioneer in championing the idea that businesses do better when they operate in a socially and environmentally responsible way. CBSR's goal is to create a sustainable, prosperous, socially just future in a generation, with a mission to empower Canadian businesses to advance and amplify social and environmental leadership. Specific to climate change, a major CBSR initiative is the development of Canada's Net-Zero Leaderboard, a public inventory of climate change commitments made by Canadian companies.

CP has representation on the CBSR Net Zero Working Group and is part of the Net-Zero Leadership Board. In this capacity, CP engages with other CBSR organizations and members on climate-related topics.

https://cbsr.ca/net-zero-leaderboard/

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.4

Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

PUBLICATION
In mainstream reports

Status
Complete

Attach the document
CP_AnnualReport_2022.pdf

Page/Section reference
p. 6 – 7, 16, 29 – 31, 39 – 40

Content elements
Governance
Strategy
Risks & opportunities
Emission targets
Other metrics

Comment
2022 Annual Report

PUBLICATION
In mainstream reports

Status
Complete

Attach the document
CP_Proxy Circular_2023.pdf

Page/Section reference
p. 13, 15 - 16, 91 -100

Content elements
Governance
Strategy
Emission targets

Comment
2023 Management Proxy Circular

PUBLICATION
In voluntary sustainability report

Status
Complete

Attach the document
CP_Climate_Strategy.pdf

Page/Section reference
Entire Document

Content elements
Governance
Strategy
Risks & opportunities
Emission targets

Comment
CP Climate Strategy

PUBLICATION
In voluntary sustainability report

Status
Complete

Attach the document
2022 Sustainability Data Report.pdf

Page/Section reference
p. 26 - 29

Content elements
Emissions figures
Emission targets
Other metrics

Comment
2022 Sustainability Data Report

C12.5

Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Task Force on Climate-related Financial Disclosures (TCFD)	In 2022, CP became the first freight rail company in North America to participate in the United Nations (UN) Global Compact, a voluntary leadership platform for the development, implementation and disclosure of socially and environmentally responsible business practices. Launched in 2000, the UN Global Compact is the largest corporate sustainability initiative in the world, with more than 22,000 participating companies in over 160 countries. In 2022, CP also became a supporter of the Task Force on Climate-related Financial Disclosures (TCFD), indicating our support for aligning climate-related reporting with the guidance provided.

C15. Biodiversity

C15.1

Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	No, but we plan to have both within the next two years

C15.2

Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	No, but we plan to do so within the next two years

C15.3

Does your organization assess the impacts and dependencies of its value chain on biodiversity?

IMPACTS ON BIODIVERSITY

Indicate whether your organization undertakes this type of assessment

Yes

Value chain stage(s) covered

Direct operations

Tools and methods to assess impacts and/or dependencies on biodiversity

Other, please specify

CP Environmental Policy and Processes

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

CP's Environmental Policy governs our environmental practices and we evaluate and mitigate environmental risk through our environmental management system. We develop appropriate mitigation and protection measures, deploy management and prevention tools and enhance environmental awareness for CP employees.

To minimize the impact of our projects and operations, we consider biodiversity impacts in the environmental screenings we conduct and develop avoidance and mitigation measures to protect and maintain biodiversity. Our practices include minimizing our interactions with wildlife whenever possible and incorporating learnings from incidents involving wildlife living near our railroad into our environmental management practices. We also work with various stakeholders, including governments, environmental organizations and Indigenous communities on conservation initiatives along our operating right-of-way.

Examples include:

- A five-year joint grizzly bear research initiative with Parks Canada to understand underlying causes that contribute to grizzly bear risk on the railway and to implement solutions to reduce grizzly bear mortality on the railway. To date, CP has invested over $1M in these mitigation measures.
- Incorporation of five acres of spawning beach to mitigate impacts to the local environment and support native fish species during expansion of our embankment into a fisheries sensitive zone in British Columbia.

- Deployment of an app to frontline employees to record wildlife strikes to support evaluation of potential mitigation measures which could help reduce the number of animals struck each year.

DEPENDENCIES ON BIODIVERSITY

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

C15.4

Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?

Yes

C15.4A

Provide details of your organization's activities in the reporting year located in or near to biodiversity -sensitive areas.

Yes

Classification of biodiversity -sensitive area

UNESCO World Heritage site

Country/area

United States of America

Name of the biodiversity-sensitive area

We operate through a UNESCO World Heritage Site, three National Parks, a National Heritage Site, Ramsar Wetlands, and numerous other protected areas such as Fish and Wildlife Refuges and Bird Sanctuaries.

Proximity

Overlap

Briefly describe your organization's activities in the reporting year located in or near to the selected area

Operational Railroad

Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Not assessed

Mitigation measures implemented within the selected area

Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

C15.5

What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management

C15.6

Does your organization use biodiversity indicators to monitor performance across its activities?

Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
No, we do not use indicators, but plan to within the next two years	

C15.7

Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Impacts on biodiversity	2020 Corporate Sustainability Report (p. 28 – 31) [1]

[1] CP_Corporate Sustainability Report_2020.pdf

C16. Signoff

C-FI

Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

Provide details for the person that has signed off (approved) your CDP climate change response.

Job title	Corresponding job category
Executive Vice-President and Chief Financial Officer	Chief Financial Officer (CFO)

SC. Supply chain module

SC0.0

If you would like to do so, please provide a separate introduction to this module.

SC0.1

What is your company's annual revenue for the stated reporting period?

Annual Revenue
8,814,000,000

SC1.1

Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

REQUESTING MEMBER
General Motors Company

Scope of emissions
Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO_2e
2,045

Uncertainty (±%)
5

Major sources of emissions
Locomotive fuel consumption is associated with the movement of General Motors products by CP. System data has been verified at a reasonable level.

Verified
Yes

Allocation method
Other, please specify
Allocation based on revenue ton-miles (RTMs) for General Motors

Market value or quantity of goods/services supplied to the requesting member
104,870,380

Unit for market value or quantity of goods/services supplied
Other, please specify
revenue ton-miles (RTMs)

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Locomotive operations account for approximately 95 percent of total Scope 1

and Scope 2 GHG emissions. To provide an estimate of total GHG emissions, CP's average kilograms of CO_2e per unit RTM is multiplied by the total RTMs of General Motors' freight transported by CP in 2022. CP's average kilograms of CO_2e per unit RTM includes all forms of freight service (Bulk, Intermodal, Automotive, etc.) across CP's Rail network. As a result, the emissions values presented here may represent an over/underestimation of actual GHG emissions.

REQUESTING MEMBER

Schlumberger Limited

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO_2e

13

Uncertainty (±%)

5

Major sources of emissions

Locomotive fuel consumption is associated with the movement of Schlumberger products by CP. System data has been verified at a reasonable level.

Verified

Yes

Allocation method

Other, please specify

Allocation based on revenue ton-miles (RTMs) for Schlumberger

Market value or quantity of goods/services supplied to the requesting member

660,863

Unit for market value or quantity of goods/services supplied

Other, please specify

revenue ton-miles (RTMs)

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Locomotive operations account for approximately 95 percent of total Scope 1 and Scope 2 GHG emissions. To provide an estimate of total GHG emissions, CP's average kilograms of CO_2e per unit RTM is multiplied by the total RTMs of Schlumberger's freight transported by CP in 2022. CP's average kilograms of CO_2e per unit RTM includes all forms of freight service (Bulk, Intermodal, Automotive, etc.) across CP's rail network. As a result, the emissions values presented here may represent an over/underestimation of actual GHG emissions.

REQUESTING MEMBER

Bayer AG

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO_2e

2,788

Uncertainty (±%)

5

Major sources of emissions

Locomotive fuel consumption is associated with the movement of Bayer products by CP. System data has been verified at a reasonable level.

Verified
Yes

Allocation method
Other, please specify

Allocation based on revenue ton-miles (RTMs) for Bayer

Market value or quantity of goods/services supplied to the requesting member
142,956,706.87

Unit for market value or quantity of goods/services supplied
Other, please specify

revenue ton-miles (RTMs)

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Locomotive operations account for approximately 95 percent of total Scope 1 and Scope 2 GHG emissions. To provide an estimate of total GHG emissions, CP's average kilograms of CO_2e per unit RTM is multiplied by the total RTMs of Bayer's freight transported by CP in 2021. CP's average kilograms of CO_2e per unit RTM includes all forms of freight service (Bulk, Intermodal, Automotive, etc.) across CP's rail network. As a result, the emissions values presented here may represent an over/underestimation of actual GHG emissions.

REQUESTING MEMBER
The Dow Chemical Company

Scope of emissions
Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO_2e
1,148

Uncertainty (±%)

Major sources of emissions
Locomotive fuel consumption is associated with the movement of Dow products by CP. System data has been verified at a reasonable level.

Verified
Yes

Allocation method
Other, please specify

Allocation based on revenue ton-miles (RTMs) for Dow

Market value or quantity of goods/services supplied to the requesting member
58,866,055

Unit for market value or quantity of goods/services supplied
Other, please specify

revenue ton-miles (RTMs)

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Locomotive operations account for approximately 95 percent of total Scope 1 and Scope 2 GHG emissions. To provide an estimate of total GHG emissions, CP's average kilograms of CO_2e per unit RTM is multiplied by the total RTMs of Dow's freight transported by CP in 2022. CP's average kilograms of CO_2e per unit RTM includes all forms of freight service (Bulk, Intermodal, Automotive, etc.) across CP's rail network. As a result, the emissions values presented here may represent an over/underestimation of actual GHG emissions.

SC1.2

Where published information has been used in completing SC1.1, please provide a reference(s).

CP's 2022 Annual Report: https://s21.q4cdn.com/736796105/files/doc_financials/2022/ar/CP_AnnualReport_2022.pdf

SC1.3

What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Customer base is too large and diverse to accurately track emissions to the customer level	CP's current approach to calculating locomotive emissions is based on customer activity data. We have continually sought to improve the accuracy of our process for capturing customer emissions. An area where we might continue to improve is the allocation method that can over/underestimate the Scope 1 emissions associated with the movement of the customer's products due to the use of an overall corporate average of GHG emissions per RTM, as opposed to focusing on customer-specific efficiency factors. To obtain more accurate values, it could be necessary to refine the emissions factors to take into account additional customer data, such as geographic areas for the movements, origin-destination pairs, the commodity being transported and the configuration of railcars involved (intermodal containers, automotive, bulk gondola, tank car, etc.). As our approach to climate change continues to evolve, there might be opportunities to work with our customers to further refine our approach.

SC1.4

Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

SC1.4A

Describe how you plan to develop your capabilities.

CP has developed a web-based Carbon Emissions Calculator intended for use by current and prospective rail customers. This innovative tool is designed to provide users with the ability to calculate and compare an estimate of the GHG emissions related to transportation of freight by CP's rail services versus heavy haul trucking alternatives. The additional insight into the climate-related impacts of moving freight by CP rail network versus heavy haul trucking supports customers in making informed decisions on freight transportation options that are consistent with their own climate-related strategies. Eventually, this tool may be further enhanced to include emissions factors specific to various lines of CP business. For example, shipping bulk grain commodities in hopper cars is more efficient than transporting lighter consumer materials in shipping containers.

SC2.1

Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

REQUESTING MEMBER
General Motors Company

Group type of project

Type of project

Emissions targeted

Estimated timeframe for carbon reductions to be realized

Estimated lifetime CO_2e savings

Estimated payback

Details of proposal
CP looks for opportunities to engage with our customers through education and awareness, partnerships, policy development and climate-related disclosure as a key component of our Climate Strategy. Through these processes, CP is working to fully explore and understand the climate-related impacts facing our business, build shared capacity for climate action, enhance the resiliency of our network and remain connected with emerging technology solutions that support the emissions reduction objectives of CP and our customers. We recognize that sharing experiences and insights with our customers adds value to CP's climate programs, supporting collaboration and learning from different perspectives.

Please connect with your CP account representative to learn more about the benefits of shipping freight by rail and how CP may be able help you to reduce your Scope 3 transportation-related GHG emissions.

REQUESTING MEMBER
Schlumberger Limited

Group type of project

Type of project

Emissions targeted

Estimated timeframe for carbon reductions to be realized

Estimated lifetime CO_2e savings

Estimated payback

Details of proposal
CP looks for opportunities to engage with our customers through education and awareness, partnerships, policy development and climate-related disclosure as a key component of our Climate Strategy. Through these processes, CP is working to fully explore and understand the climate-related impacts facing our business, build shared capacity for climate action, enhance the resiliency of our network and remain connected with emerging technology solutions that support the emissions reduction objectives of CP and our customers. We recognize that sharing experiences and insights with our customers adds value to CP's climate programs, supporting collaboration and learning from different perspectives.

Please connect with your CP account representative to learn more about the benefits of shipping freight by rail and how CP may be able help you to reduce your Scope 3 transportation-related GHG emissions.

REQUESTING MEMBER
Bayer AG

Group type of project

Type of project

Emissions targeted

Estimated timeframe for carbon reductions to be realized

Estimated lifetime CO_2e savings

Estimated payback

Details of proposal
CP looks for opportunities to engage with our customers through education and awareness, partnerships, policy development and climate-related disclosure as a key component of our Climate Strategy. Through these processes, CP is working to fully explore and understand the climate-related impacts facing our business, build shared capacity for climate action, enhance the resiliency of our network and remain connected with emerging technology solutions that support the emissions reduction objectives of CP and our customers. We recognize that sharing experiences and insights with our customers adds value to CP's climate programs, supporting collaboration and learning from different perspectives.

Please connect with your CP account representative to learn more about the benefits of shipping freight by rail and how CP may be able help you to reduce your Scope 3 transportation-related GHG emissions.

REQUESTING MEMBER
The Dow Chemical Company

Group type of project

Type of project

Emissions targeted

Estimated timeframe for carbon reductions to be realized

Estimated lifetime CO_2e savings

Estimated payback

Details of proposal
CP looks for opportunities to engage with our customers through education and awareness, partnerships, policy development and climate-related disclosure as a key component of our Climate Strategy. Through these processes, CP is working to fully explore and understand the climate-related impacts facing our business, build shared capacity for climate action, enhance the resiliency of our network and remain connected with emerging technology solutions that support the emissions reduction objectives of CP and our customers. We recognize that sharing experiences and insights with our customers adds value to CP's climate programs, supporting collaboration and learning from different perspectives.

Please connect with your CP account representative to learn more about the benefits of shipping freight by rail and how CP may be able help you to reduce your Scope 3 transportation-related GHG emissions.

SC2.2

Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options		Public

Please confirm below

Appendix 1: Assurance Opinion

455 Phillip Street, Unit 100A
Waterloo, Ontario N2L 3X2
Canada
www.ghd.com

GHD Reference No: 11196249-LTR-3

29 May 2023

Mr. Nirwair Bajwa
Specialist Sustainability, Climate & Energy
Canadian Pacific
7550 Ogden Dale Road SE
Calgary, Alberta
T2C 4X9

Assurance Report

Dear Mr. Bajwa

The purpose of this letter is to clarify matters set out in the Assurance Report. It is not an Assurance Report and is not a substitute for the Assurance Report.

This letter and the verifier's Assurance Report, including the opinion(s), are addressed to you and are solely for your benefit in accordance with the terms of the contract. We consent to the release of this letter by you to the CDP in order to satisfy the terms of CDP disclosure requirements but without accepting or assuming any responsibility or liability on our part to CDP or to any other party who may have access to this letter or our Assurance Report.

In accordance with our engagement with you dated February 27, 2023 (the "contract") and for the avoidance of doubt, we confirm that our *Verification Report: 2022 CDP GHG Report* to you dated June 7, 2023 (the "Assurance Report") incorporated the following matters:

1. Boundaries of the reporting company covered by the Assurance Report and any known exclusions*[1]:

CP operations assessed as part of this verification included CP's entire corporate operations, which includes all sources in which CP has majority ownership and operational control. The inventory boundary includes the CP direct mobile emissions (locomotive and other vehicles such as corporate on-road and off-road vehicles), direct stationary combustion (building heating), and indirect emissions due to electricity supply to CP corporate operations. Other indirect (Scope 3) emissions included in the inventory include purchased goods and services, capital goods, fuel and energy-related activities, upstream transportation and distribution, waste generated in operations, business travel, and employee commuting. Verification is completed at the corporate level.

*[1] Optional field

2. Emissions data verified - broken down by Scope 1, Scope 2, and Scope 3 categories with figures given; option to include other relevant data that has been verified with figures:

Total Entity-Wide Emissions Verified

Scope 1 Emissions[2]:	3,008,855 tonnes CO_2e
Scope 2 Emissions (Market-based):	41,244 tonnes CO_2e
Scope 2 Emissions (Location-based):	41,343 tonnes CO_2e
Scope 3 Emissions:	1,626,646 tonnes CO_2e

Reporting Metrics in the CDP Climate Change Questionnaire 2022 Verified

Locomotive SBTi Progress: CP had an increase in emission intensity of 1.4% in 2022. CP has achieved a total emission reduction of 3% compared to the baseline since 2020.

Non-locomotive SBTi Progress: CP had an increase in emissions of 22.7% in 2022. CP has achieved a total emission reduction of 27% compared to the baseline since 2020.

3. Period covered (e.g., '12-months to DD MM YY'):

The reporting period is between 01/01/22 and 31/12/22.

4. Verification standard used:

For the verification of the 2022 GHG Report, GHD has applied ISO 14064-3 and ISAE3000/3410

5. Assurance opinion (incl. level of assurance and any qualifications):

The GHG Protocol states, "as a rule of thumb, an error is considered to be materially misleading if its value exceeds 5% of the total inventory for the part of the organization being verified." Consistent with this, and industry practice, GHD established a quantitative materiality for this verification of ±5% of the total reported GHG emissions. An individual error, misrepresentation, or a series of discrete errors, omissions, or misrepresentations or individual or a series of qualitative factors, when aggregated may be considered material.

– Net sum of all Scope 1 discrepancies: no discrepancies noted
– Net sum of all Scope 2 discrepancies: no discrepancies noted
– Net sum of all Scope 3 discrepancies: no discrepancies noted

The purpose of verification was to have an independent third party assess CP's 2022 GHG Report, calculations, and compliance with the requirements of ISO 14064-3, ISAE3000/3410, the *GHG Protocol,* and associated guidance. The objective of the verification was to provide CP with assurance that there are no material misstatements in the 2022 GHG Report and that the information reported is accurate and consistent with the requirements of the *GHG Protocol*.

Based on our verification, the GHG statement is, in all material aspects, in accordance with the verification criteria and is free of material misstatements.

[2] Excluding CO_2 from biodiesel.

6. Verification provider and accreditations (if relevant):

VERIFICATION BODY NAME:	GHD Limited
VERIFICATION BODY ADDRESS:	455 Phillip Street, Unit #100A, Waterloo, Ontario, N2L 3X2
VERIFICATION BODY CONTACT:	Mr. Gordon Reusing
TITLE:	Principal
TELEPHONE:	519-340-4231
EMAIL:	Gordon.Reusing@ghd.com

Accreditations: GHD is a Canadian based company accredited by the American National Standard Institute (ANSI) under ISO 14065 to provide organizational level verification services.

7. Lead verifier name and relevant accreditations/professional membership (if relevant):

LEAD VERIFIER:	Mr. Erik Martinez
TITLE:	Associate
TELEPHONE:	519-340-4213
EMAIL:	Erik.Martinez@ghd.com

8. This letter should be prepared on the verifier's letterhead or include the signature of the lead verifier (or authorized signatory/organization responsible for issuing the Assurance Report/statement) in the box below:

Erik Martinez, P. Eng.